

**PURCHASING DEPARTMENT**

***CONTRACT FOR PUBLIC BUILDINGS***

**PROJECT MANUAL:**

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIRS & RECONSTRUCTION  
42 VERNON STREET  
NEWTON, MA 02458  
*INVITATION FOR BID #14-105***

**Pre-Bid Meeting: March 27, 2014 at 12:00 p.m.**

**Filed Sub-Bid Opening: April 3, 2014 at 12:00 p.m.**

**Bid Opening Date: April 10, 2014 at 12:00 p.m.**

**MARCH 2014**

**Setti D. Warren, Mayor**

**CITY OF NEWTON  
PROJECT MANUAL  
TABLE OF CONTENTS**

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIRS & RECONSTRUCTION**

	<u>Page #</u>
Cover Page	1
Table of Contents	2
1. - Invitation for Bid	3
2. - Instructions to Bidders	4-6
3. - Bid Form for General Contractor	7-9
- Bid Form For Sub Bid	10-11
4. - Bidder's Qualification Forms	
▪ Bidder's Qualifications and References Form	12-13
▪ Certificate of Non-Collusion	14
▪ Debarment Letter	15
▪ IRS Form W-9	16
5. - Contract Forms (Informational only. Not required at time of bid submittal)	
▪ City - Contractor Contract	18-20
▪ Certificate of Authority - Corporate	21
▪ Certification of Tax Compliance	22
▪ Performance Bond	23
▪ Payment Bond	24
6. - General Conditions of the Contract	25-30
7. - Supplemental Conditions	31-36
8. - Wage Rate Requirements	
▪ Department of Labor Minimum Wage Rates	37
▪ Prevailing Wages	38-77
▪ Notice to Awarding Authorities and Contractors	78
▪ Statement of Compliance	79
▪ Weekly Payroll Report Form	80
9. Section 01 10 00 – Scope of Work	81-82
Section 01 23 00 – Alternates	83
Section 01 31 00 – Construction Scheduling and Phasing	84-85
Section 01 33 00 – Submittals	86-87
Section 01 70 00 – Contract Closeout	88-89
10. Section 03 30 00 – Cast-in-Place Concrete & Concrete Paving	90-96
Section 04 20 00 – Thin Brick Veneer	97-100
Section 05 50 00 – Miscellaneous Metals (Filed Sub Bid Required)	101-106
Section 30 00 00 – Site Preparation and Site Work	107-119
11. Drawings for Project (separate file)	7 pages

**END OF SECTION**

**CITY OF NEWTON  
PURCHASING DEPARTMENT  
INVITATION FOR BID #14-105**

The City of Newton (City) invites sealed bids from Contractors for

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIRS & RECONSTRUCTION**

**Pre-bid** will be held on site at: **12:00 p.m., Thursday, March 27, 2014, 72 Vernon Street, Newton, MA 02458**

**Filed Sub-Bid Opening:** **12:00 p.m., Thursday, April 3, 2014**

**Bids will be received until** **12:00 p.m., Thursday, April 10, 2014**

at the Purchasing Department, Room 204, Newton City Hall, 1000 Commonwealth Ave., Newton, MA 02459. Bids will not be accepted nor may submitted bids be corrected, modified or withdrawn after the deadline for bids. Following the deadline for bids, all bids received within the time specified will be publicly opened and read aloud.

Work under this contract shall consist of: Replacement of concrete steps, walkways and some retaining walls, and railing systems. Cleaning of existing site drainage, piping and resetting of covers is included in this scope. **The construction period is expected to run for the period between June 26, 2014 and shall extend through August 27, 2014. The site will be available for work from June 26, 2014 until August 27, 2014. Work on site is limited to the summer recess period.**

Contract Documents will be available **online at the City's website: [www.newtonma.gov/bids](http://www.newtonma.gov/bids)** or for pickup at the Purchasing Department or after: **10:00 a.m., March 20, 2014.** There will be no charge for contract documents. Award will be made to the bidder with the lowest total contract price, including any accepted alternates, that has been deemed responsible and eligible. **All bids shall be submitted as one ORIGINAL and two COPIES.**

**All General Bids** must be accompanied by a copy of a "Certificate of Eligibility" (DCAMM Form CQ-7) issued by the Department of Capital Asset Management and Maintenance (DCAMM) and a "Contractor Update Statement" (DCAMM Form CQ-3). The category of work for which the Bidder must certified is: **General Building Construction**

**All Sub Trade Bids** must also be accompanied by a copy of a DCAMM-issued "Certificate of Eligibility" (DCAMM Form CQ-7) and Contractor "Update Statement" (DCAMM Form CQ-3). The category of work for which the Sub Trade Bidder must be certified in is: **Miscellaneous and Ornamental Iron**

All bids must be accompanied by a bid deposit in an amount that is not less than five percent (5%) of the value of the bid, including all alternates. Bid deposits, payable to the City of Newton, shall be either in the form of a bid bond, or cash, or a certified check, or a treasurer's or cashier's check issued by a responsible bank or trust company. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submission date. **Be advised that to the extent permitted by law the City will retain all bid deposits for withdrawn bids.**

All bids are subject to the provisions of M.G.L. c149, §§44 A to 44J. **Wages are subject** to minimum wage rates determined by the Massachusetts Department of Labor Standards pursuant to M.G.L. c149, §§26 to 27H. The schedule of wage rates applicable to this contract is included in the bidding documents. In addition, the prevailing wage schedule will be updated annually for all public construction projects lasting longer than one (1) year. You will be required to pay the rates set out in any updated prevailing wage schedule. Increases in prevailing wage schedules will not be the basis for change order requests. The successful bidder will be required to provide a Certificate of Insurance demonstrating current coverage of the type and amounts set forth in the Project Manual. The successful bidder will be required to furnish both a **Performance Bond and a Labor and Materials Payment Bond** in the amount of **100%** of the contract total.

Bidders attention is directed to the requirements of the City of Newton Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program and also to the Minority/Women Business Enterprise Plan, December 1999. Copies of the Plans and Program referred to in Sections 3.1 and 3.2 are available at: [www.newtonma.gov/purchasing](http://www.newtonma.gov/purchasing). In the event of conflict between any of the above listed policies, the stricter policy shall apply. If you download bids from the internet website [www.newtonma.gov/bids](http://www.newtonma.gov/bids) I strongly suggest you email ([purchasing@newtonma.gov](mailto:purchasing@newtonma.gov)) your company's NAME, ADDRESS, PHONE, FAX AND INVITATION FOR BID NUMBER, so that we may add you to the Bidders List and you will be notified of any/all addendums.

The City will reject any and all bids in accordance with the above referenced General Laws. In addition, the City reserves the right to waive any informalities in any or all bids, or to reject any or all bids (in whole or in part) if it be in the public interest to do so.

CITY OF NEWTON  
Nicholas Read  
Chief Procurement Officer  
March 20, 2014

**CITY OF NEWTON**  
**DEPARTMENT OF PURCHASING**  
**INSTRUCTIONS TO BIDDERS**

**ARTICLE 1 - BIDDER'S REPRESENTATION**

- 1.1 Each General Bidder (hereinafter called the "Bidder") by making a bid (hereinafter called "bid") represents that:
1. The Bidder has read and understands the Bidding Documents, Contract Forms, General Conditions, Conditions of the Contract, General Requirements and Project Specifications (collectively, referred to as the "Contract Documents") and the bid is made in accordance therewith.
  2. The Bidder has visited the work site and is familiar with the local conditions under which the work has to be performed.
- 1.2 Failure to so examine the Contract Documents and work site will not relieve any Bidder from any obligation under the bid as submitted.

**ARTICLE 2 - REQUEST FOR INTERPRETATION**

- 2.1 Bidders shall promptly notify the City of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.
- 2.2 Bidders requiring clarification or interpretation of the Contract Documents shall make a written request to the *Chief Procurement Officer*, at [purchasing@newtonma.gov](mailto:purchasing@newtonma.gov) or via facsimile (617) 796-1227. The City will only answer such requests if received by **Friday, April 4, 2014 at 12:00 noon**. In the event that the bid opening date is changed, the deadline for informational requests may also change as provided in an addendum issued by the City.
- 2.3 Interpretation, correction, or change in the Contract Documents will be made by addendum which will become part of the Contract Documents. The City will not be held accountable for any oral communication.
- 2.4 Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents. Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents. Receipt of all addenda issued must be acknowledged in the Bid Form. **YOUR FAILURE TO ACKNOWLEDGE ALL ADDENDA MAY RESULT IN YOUR BID BEING REJECTED AS NON-RESPONSIVE.**
- 2.5 Copies of addenda will be made available for inspection at the location listed in the Invitation for Bids where Contract Documents are on file, in addition to being available online at [www.newtonma.gov/bids](http://www.newtonma.gov/bids).
- 2.6 Bidders or proposers contacting ANY CITY EMPLOYEE regarding an Invitation for Bid (IFB) or a Request for Proposal (RFP), outside of the Purchasing Department, once an IFB or RFP has been released, may be disqualified from the procurement process.
- 2.7 Bidders downloading information off the internet web site are solely responsible for obtaining any addenda prior to the bid opening. If the bidder makes itself known to the Purchasing Department, at [purchasing@newtonma.gov](mailto:purchasing@newtonma.gov) or via facsimile (617) 796-1227, it shall be placed on the bidder's list. Bidders must provide the Purchasing Department with their company's name, street address, city, state, zip, phone, fax, email address and **INVITATION FOR BID #14-105**.

**ARTICLE 3 - MBE PARTICIPATION**

- 3.1 Notice is hereby given that the Mayor's Affirmative Action Plan for the City of Newton in effect at the time of this solicitation is applicable to all construction contracts in excess of \$10,000.00.
- 3.2 Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan and the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program in effect at the time of this solicitation are applicable to all City contracts for goods and services in excess of \$50,000.00.
- 3.3 Copies of the Plans and Program referred to in Sections 3.1 and 3.2 are available at: [www.newtonma.gov/purchasing](http://www.newtonma.gov/purchasing).

## ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

- 4.1 Bids shall be submitted on the "Bid Form" as appropriate, furnished by the City.
- 4.2 All entries on the Bid Form shall be made by typewriter or in ink.
- 4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and figures. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.
- 4.4 Bid Deposits shall be submitted in the amount specified in the Invitation for Bids. They shall be made payable to the City and shall be either in the form of cash, certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts; and shall be conditioned upon the faithful performance by the principal of the agreements contained in the bid. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submission date. **Be advised that to the extent permitted by the law the City will retain all bid deposits for withdrawn bids.**

Bid deposits of the three (3) lowest responsible and eligible Bidders shall be retained until the execution and delivery of the City-Contractor agreement.

- 4.5 The Bid, including the bid deposit shall be enclosed in a sealed envelope with the following plainly marked on the outside:

- \* GENERAL BID FOR: **#14-105**
- \* NAME OF PROJECT: **Bigelow Middle School Entrance Repairs & Reconstruction**
- \* BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER

- 4.6 Date and time for receipt of bids is set forth in the Invitation for Bids.
- 4.7 Timely delivery of a bid at the location designated shall be the full responsibility of the Bidder. In the event that Newton City Hall is closed on the date or at the time that bids are due, the date and time for receipt of bids shall be on the next business day following that the Newton City Hall and the Purchasing Department are open.
- 4.8 Bids shall be submitted with one **original** and two **copies**.
- 4.9 Be advised that a new Massachusetts law has been enacted that required all employees who work on Massachusetts public works construction sites must have no less than 10 hours of OSHA-approved safety and health training. See Chapter 306 of the Acts of 2004, which became effective July 1, 2006.
1. This requirement will apply to any general bid or sub bid submitted.
  2. This law directs the Massachusetts Attorney General to restrain the award of construction contracts to any contractor who is in violation to this requirement and to restrain the performance of these contracts by non-complying contractors.
  3. The contractor and all subcontractors on this project will be required to provide certification of compliance with this requirement. Non-compliance with this law will disqualify you from bidding on public contracts.

## ARTICLE 5 - ALTERNATES

- 5.1 Each Bidder shall acknowledge alternates (if any) in Section C on the Bid Form.
- 5.2 In the event an alternate does not involve a change in the amount of the base bid, the Bidder shall so indicated by writing "No Change", or "N/C" or "0" in the space provided for that alternate.
- 5.3 Bidders shall enter on the Bid Form a single amount for each alternate which shall consist of the amount for work performed by the Contractor.
- 5.4 The low Bidder will be determined on the basis of the sum of the base bid and the accepted alternates.

## ARTICLE 6 - WITHDRAWAL OF BIDS

- 6.1 Any bid may be withdrawn prior to the time designated for receipt of bids on written or electronic request. Electronic withdrawal of bids must be confirmed over the Bidder's signature by written notice postmarked on or before the date and time set for receipt of bids.
- 6.2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.
- 6.3 No bids may be withdrawn within sixty (60) days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

## ARTICLE 7 - CONTRACT AWARD

- 7.1 The City is soliciting prices for the construction services set forth in this Invitation For Bids (IFB). It is the City's intent to award one (1) contract to the responsible and eligible General Contractor offering the lowest bid on General Bid Form 14-105. Contracts will be awarded within sixty (60) days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids.
- 7.2 The City reserves the right to waive minor informalities in or to reject any or all Bids if it be in the public interest to do so.
- 7.3 The City reserves the right to reject any bidder who has failed to pay any local taxes, fees, assessments, betterments, or any other municipal charge, unless the bidder has a pending abatement application or has entered into a payment agreement with the collector-treasurer.
- 7.4 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who has met all the requirements of the invitation for bids; (3) who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (4) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder.
- 7.5 Subsequent to the award and within five (5) days, Saturday, Sundays and legal holidays excluded, after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the City a contract in the form included in the Contract Documents in such number of counterparts as the City may require.
- 7.6 In the event that the City receives low bids in identical amount from two or more responsive and responsible Bidders, the City shall select the successful Bidder by a blind selection process chosen by the City such as flipping a coin or drawing names from a hat. The low Bidders who are under consideration will be invited to attend and observe the selection process.

## ARTICLE 8 - TAXES

- 8.1 The Bidder shall not include in this bid any tax imposed upon the sale or rental of tangible personal property in this Commonwealth, such as any and all building materials, supplies, services and equipment required to complete the work.
- 8.2 The City is exempt from payment of the Massachusetts Sales Tax, and the Bidder shall not include any sales tax on its bid. The City's exemption Number is E-046-001-404.

## ARTICLE 9 – PROPRIETARY SPECIFICATIONS

- 9.1 The City may have used a proprietary specification to describe the supply for which is soliciting bids. Such specifications are permitted under M.G.L. c. 30B, §14, provided that the Chief Procurement Officer has prepared a written statement that no other manner of description suffices and the justification therefor.
- 9.2 The required determination and justification have been duly prepared, and a copy may be requested in accordance with the Massachusetts Public Records Law, M.G.L. c. 66, §10.

## END OF SECTION

**CITY OF NEWTON**

**PURCHASING DEPARTMENT**

**FORM FOR GENERAL BID #14-105**

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIRS & RECONSTRUCTION**

**TO THE AWARDING AUTHORITY:**

**A.** The undersigned proposes to furnish all labor and materials required to

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIRS & RECONSTRUCTION**

in Newton, Massachusetts in accordance with the accompanying plans and specifications for the contract price specified below, subject to additions and deductions according to the terms of the specifications.

**B.** This bid includes addenda number(s) \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

**C.** The proposed contract price is:

TOTAL dollars in words \_\_\_\_\_

For Alternate No 1. \_\_\_\_\_; Add \$ \_\_\_\_\_ Subtract \$ \_\_\_\_\_

For Alternate No 2. \_\_\_\_\_; Add \$ \_\_\_\_\_ Subtract \$ \_\_\_\_\_

COMPANY: \_\_\_\_\_

The sub-division of the proposed contract price is as follows:

**Item 1.** The work of the General Contractor, being all work other than that covered by Item 2

**Total of Item 1:** \$ \_\_\_\_\_

**Item 2.** Sub-bids as follows:

Sub-Trade	Name of Sub-bidder	Amount	Bond Required ? (Yes or No)
Miscellaneous And Ornamental Iron	_____	\$ _____	_____

**Total of Item 2:** \$ \_\_\_\_\_

COMPANY: \_\_\_\_\_



- D.** Prompt Payment Discounts. Bidders are encouraged to offer discounts in exchange for an expedited payment. Payments may be issued earlier than the general goal of within 30 days of receipt of the invoice only when in exchange for discounted prices. Discounts will not be considered in determining the low responsible bidder.

Prompt Payment Discount \_\_\_\_\_ % \_\_\_\_\_ Days  
Prompt Payment Discount \_\_\_\_\_ % \_\_\_\_\_ Days  
Prompt Payment Discount \_\_\_\_\_ % \_\_\_\_\_ Days

- E.** The undersigned has completed and submits herewith the following documents:

- ☐ Bidder's Qualifications and References Form, 2 pages
- ☐ Certificate of Non-Collusion, 1 page
- ☐ General Contractor or Sub-Bid Contractor Signed Bid Form, 2-3 pages
- ☐ A five percent (5%) bid deposit.
- ☐ Debarment Letter, 1 page
- ☐ IRS Form W-9, 1 page

- F.** The undersigned agrees that each of the above named sub-bidders will be used for the work indicated at the amount stated, unless a substitution is made. The undersigned further agrees to pay the premiums for the performance and payment bonds furnished by sub-bidders as requested herein and that all of the cost of all such premiums is included in the amount set forth in Item 1 of this bid.

The undersigned agrees that if s/he is selected as general contractor, s/he will promptly confer with the awarding authority on the question of sub-bidders; and that the awarding authority may substitute for any sub-bid listed above a sub-bid filed with the awarding authority by another sub-bidder for the sub-trade against whose standing and ability the undersigned makes no objection; and that the undersigned will use all such finally selected sub-bidders at the amounts named in their respective sub-bids and be in every way as responsible for them and their work as if they had been originally named in this general bid, the total contract price being adjusted to conform thereto.

- G.** The undersigned agrees that, if s/he is selected as general contractor, s/he will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a performance bond and also a labor and materials payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.

The undersigned hereby certifies that s/he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that s/he will comply fully with all laws and regulations applicable to awards made subject to M.G.L. c.30, §39M.

The undersigned certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration ("OSHA") that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States OSHA that is at least 10 hours in duration. The undersigned understands that any employee found on a worksite subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration shall be subject to immediate removal.

The undersigned further certifies that s/he intends to comply with the City of Newton Minority/Women Business Enterprise Plan, dated December 19, 1999 to further expand business opportunities for minority firms.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural

person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of M.G.L. c29, §29F or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date : \_\_\_\_\_

\_\_\_\_\_  
(Name of General Bidder)

BY: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name and Title of Signatory)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City, State Zip)

\_\_\_\_\_  
E-mail address

\_\_\_\_\_  
(Telephone)      /      (FAX)

**NOTE:** If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.

**END OF SECTION**

**CITY OF NEWTON  
PURCHASING DEPARTMENT  
FORM FOR SUB-BID #14-105**

To all General Bidders Except those Excluded:

- A. The Undersigned proposes to furnish all labor and materials required for completing, in accordance with the hereinafter described plans, specifications and addenda, all the work specified in Section No. \_\_\_\_\_ of the specifications and in any plans specified in such section, prepared by Knight, Bagge & Anderson, Inc. (name of architect or engineer) for The Bigelow Middle School Entrance Repairs and Reconstruction (project) in Newton (city or town), Massachusetts, for the contract sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_).

For Alternate No 1. \_\_\_\_\_; Add \$\_\_\_\_\_ Subtract \$\_\_\_\_\_  
For Alternate No 2. \_\_\_\_\_; Add \$\_\_\_\_\_ Subtract \$\_\_\_\_\_

- B. This sub-bid includes addenda numbered\_\_\_\_\_

- C. This sub-bid

☐ may be used by any general bidder except:

\_\_\_\_\_  
\_\_\_\_\_

☐ may only be used by the following general bidders:

\_\_\_\_\_  
\_\_\_\_\_

[To exclude general bidders, insert "X" in one box only and fill in blank following that box. Do not answer C if no general bidders are excluded.]

- D. The undersigned agrees that, if he is selected as a sub-bidder, he will, within 5 days, Saturdays, Sundays and legal holidays excluded, after presentation of a subcontract by the general bidder selected as the general contractor, execute with such general bidder a subcontract in accordance with the terms of this sub-bid, and contingent upon the execution of the general contract, and, if requested so to do in the general bid by the general bidder, who shall pay the premiums therefor, or if prequalification is required pursuant to section 44D 3/4, furnish a performance and payment bond of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority, in the full sum of the subcontract price.

- E. The names of all persons, firms and corporations furnishing to the undersigned labor or labor and materials for the class or classes or part thereof of work for which the provisions of the section of the specifications for this sub-trade require a listing in this paragraph, including the undersigned if customarily furnished by persons on his own payroll and in the absence of a contrary provision in the specifications, the name of each such class of work or part thereto and the bid price for such class of work or part thereof are:

Name	Class of Work	Bid price
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

[Do not give bid price for any class or part thereof furnished by undersigned.]

- F. The undersigned agrees that the above list of bids to the undersigned represents bona fide bids based on the hereinbefore described plans, specifications and addenda and that, if the undersigned is awarded the contract, they will be used for the work indicated at the amounts stated, if satisfactory to the awarding authority.

- G. The undersigned further agrees to be bound to the general contractor by the terms of the hereinbefore described plans, specifications, including all general conditions stated therein, and addenda, and to assume toward him all the obligations and responsibilities that he, by those documents, assumes toward the owner.
- H. The undersigned offers the following information as evidence of his qualifications to perform the work as bid upon according to all the requirements of the plans and specifications: –

1. Have been in business under present business name \_\_\_\_\_ years.

2. Ever failed to complete any work awarded? \_\_\_\_\_

3. List one or more recent buildings with names of the general contractor and architect on which you served as a sub-contractor for work of similar character as required for the above-named building.

Building	Architect	General Contractor	Amount of Contract
(a) _____	_____	_____	_____
(b) _____	_____	_____	_____
(c) _____	_____	_____	_____

4. Bank reference \_\_\_\_\_

- I. The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that he will comply fully with all laws and regulations applicable to awards of subcontracts subject to section forty-four F.

The undersigned further certifies under penalties of perjury that this sub-bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date : \_\_\_\_\_

\_\_\_\_\_  
(Name of Sub Bidder)

BY: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Name and Title of Signatory)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City, State Zip)

\_\_\_\_\_  
E-mail address

\_\_\_\_\_  
(Telephone) (FAX)

**END OF SECTION**

## CITY OF NEWTON

### BIDDER'S QUALIFICATIONS AND REFERENCES FORM

All questions must be answered, and the data given must be clear and comprehensive. Please type or print legibly. If necessary, add additional sheet for starred items. This information will be utilized by the City for purposes of determining bidder responsiveness and responsibility with regard to the requirements and specifications of the Contract.

1. FIRM NAME: \_\_\_\_\_
2. WHEN ORGANIZED: \_\_\_\_\_
3. INCORPORATED? \_\_\_\_ YES \_\_\_\_ NO DATE AND STATE OF INCORPORATION: \_\_\_\_\_
4. IS YOUR BUSINESS A **MBE**? \_\_\_\_ YES \_\_\_\_ NO **WBE**? \_\_\_\_ YES \_\_\_\_ NO or **MWBE**? \_\_\_\_ YES \_\_\_\_ NO
- \* 5. LIST ALL CONTRACTS CURRENTLY ON HAND, SHOWING CONTRACT AMOUNT AND ANTICIPATED DATE OF COMPLETION:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- \* 6. HAVE YOU EVER FAILED TO COMPLETE A CONTRACT AWARDED TO YOU?  
\_\_\_\_ YES \_\_\_\_ NO  
IF YES, WHERE AND WHY?  
\_\_\_\_\_  
\_\_\_\_\_
- \* 7. HAVE YOU EVER DEFAULTED ON A CONTRACT? \_\_\_\_ YES \_\_\_\_ NO  
IF YES, PROVIDE DETAILS.  
\_\_\_\_\_  
\_\_\_\_\_
- \* 8. LIST YOUR VEHICLES/EQUIPMENT AVAILABLE FOR THIS CONTRACT:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- \* 9. IN THE SPACES FOLLOWING, PROVIDE INFORMATION REGARDING CONTRACTS COMPLETED BY YOUR FIRM SIMILAR IN NATURE TO THE PROJECT BEING BID. A MINIMUM OF FOUR (4) CONTRACTS SHALL BE LISTED. PUBLICLY BID CONTRACTS ARE PREFERRED, BUT NOT MANDATORY.  
  
PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_

DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? \_\_\_\_\_ YES \_\_\_\_\_ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_) \_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? \_\_\_\_\_ YES \_\_\_\_\_ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_) \_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? \_\_\_\_\_ YES \_\_\_\_\_ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_) \_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: \_\_\_\_\_  
OWNER: \_\_\_\_\_  
CITY/STATE: \_\_\_\_\_  
DOLLAR AMOUNT: \$ \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_  
PUBLICLY BID? \_\_\_\_\_ YES \_\_\_\_\_ NO  
TYPE OF WORK?: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_ TELEPHONE #: (\_\_\_\_) \_\_\_\_\_  
CONTACT PERSON'S RELATION TO PROJECT?: \_\_\_\_\_  
(i.e., contract manager, purchasing agent, etc.)

10. The undersigned certifies that the information contained herein is complete and accurate and hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City in verification of the recitals comprising this statement of Bidder's qualifications and experience.

DATE: \_\_\_\_\_ BIDDER: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

PRINTED NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

**END OF SECTION**

## **CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word “person” shall mean any natural person, business, partnership, corporation, union, committee club, or other organization, entity, or group or individuals.

---

(Signature of individual)

---

Name of Business





**Request for Taxpayer  
Identification Number and Certification**

Give form to the  
requester. Do not  
send to the IRS.

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name, if different from above	
	Check appropriate box: <input type="checkbox"/> Individual/Sole proprietor <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ..... <input checked="" type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	City, state, and ZIP code	
List account number(s) here (optional)		

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶	Name
------------------	----------------------------	--------	------

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Purpose of Form**

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

## **CONTRACT FORMS**

The awarded bidder will be required to complete and submit documents substantially similar in form to the following.

These forms may need to be modified on account of changed circumstances, and are provided for informational purposes only.

## CITY - CONTRACTOR AGREEMENT

### CONTRACT NO. C-

THIS AGREEMENT made this \_\_\_\_ day of \_\_\_\_\_ in the year Two Thousand and Fourteen by and between the CITY OF NEWTON, a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, hereinafter referred to as the CITY, acting through its Chief Procurement Officer, but without personal liability to him, and

hereinafter referred to as the CONTRACTOR.

The parties hereto for the considerations hereinafter set forth agree as follows:

- I. SCOPE OF WORK.** The Contractor shall furnish all labor, materials and equipment, and perform all work required in strict accordance with the Contract Documents for the following project:

#### **BIGELOW MIDDLE SCHOOL ENTRANCE REPAIRS & RECONSTRUCTION**

- II. CONTRACT DOCUMENTS.** The Contract documents consist of the following documents which are either attached to this Agreement or are incorporated herein by referenced:

- a. This CITY-CONTRACTOR Agreement;
- b. The City's Invitation For Bid #14-105 issued by the Purchasing Department;
- c. The Project Manual for Bigelow Middle School Entrance Repairs and Reconstruction including the Instructions to Bidders; General Conditions; Special Conditions; MWBE/AA Requirements, Wage Rate Requirements and Wage Rate Schedule(s) including any updated prevailing wage rate schedules if applicable; The Supplementary Special Conditions; General Requirements and Project Specifications; and Drawings, if included or referenced therein;
- d. Addenda Number(s) \_\_\_\_\_;
- e. The Bid Response of the CONTRACTOR submitted for this Project and accompanying documents and certifications;
- f. Certificate(s) of Insurance and surety bond(s) submitted by the CONTRACTOR in connection with this Project;
- g. Duly authorized and executed Amendments, Work Orders, or Change Orders issued by the CITY after execution of this CITY-CONTRACTOR Agreement.

This CITY-CONTRACTOR Agreement, together with the other documents enumerated in this Article, constitute the entire Agreement between the CITY and the CONTRACTOR.

- III. PRIORITY OF DOCUMENTS.** In the event of inconsistency between the terms of this CITY -CONTRACTOR Agreement and the Project Manual, the terms of this Agreement shall prevail.

- IV. APPLICABLE STATUTES.** All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

- V. CONTRACT TERM.** The term of this contract shall extend from June 26, 2014 through August 27, 2014. Work is expected to begin upon execution of this contract and shall be substantially completed within 60 calendar days.
- VI. AUTHORIZATION OF AND PAYMENT FOR WORK PERFORMED.** The execution of this contract does not constitute a notice to proceed or authorization to perform work. No work shall be commenced unless authorized by a written Work Order prepared by City of Newton Public Buildings Department specifying the work to be performed. The Contractor will be paid for work performed in accordance with the provisions contained in the Project Manual and applicable state law.
- VII. RESPONSIBILITY FOR THE WORK/INDEMNIFICATION.** The Contractor shall take all responsibility for the work, and shall take all precautions for preventing injuries to persons and property in or about the work and shall defend, indemnify and hold the City harmless from all loss, cost, damage or expense arising from injuries to persons or property in or about the work. The Contractor shall be responsible for any damage which may be caused by the failure or insufficiency of any temporary works. He shall effectively protect his work and shall be liable for all damage and loss by delay or otherwise caused by his neglect or failure so to do.
- VIII. WARRANTY.** Except as may be otherwise provided in the Project Manual, the Contractor shall replace, repair or make good, without cost to the City, any defects or faults arising within one (1) year after date of acceptance of work and materials furnished hereunder (acceptance not to be unreasonably delayed) resulting from imperfect or defective work done or materials furnished by the Contractor.
- IX. PATENT INDEMNIFICATION.** The Contractor agrees to assume the defense of and shall indemnify and save harmless the City and all persons acting for or on behalf of it from all suits and claims against them, or any of them, arising from or occasioned by the use of any material, equipment or apparatus, or any part thereof which infringes or is alleged to infringe on any patent rights. In case such material, equipment or apparatus, or any part thereof, in any such suit is held to constitute infringement, the Contractor, within a reasonable time, shall at its own expense, and as the City may elect, replace such material, equipment or apparatus with non-infringing material, equipment or apparatus, or remove the material, equipment, or apparatus and refund the sums paid therefor.
- X. ASSIGNMENT/SUB-CONTRACTING.** The Contractor agrees that he will not sell, assign or transfer this Contract or any part thereof or interest therein without the prior written consent of the City.
- XI. TERMINATION.** If the work to be done under this Contract shall be abandoned, or if this Contract or any part thereof shall be assigned or transferred, without the previous written consent of the City, or if the Contract or any claim hereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the City determines that the conditions herein specified as to the rate of progress are not fulfilled, or that the work or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of this Contract, the City may terminate this Contract and/or notify the Contractor to discontinue such work or such part thereof as the City may designate, and the City may thereupon by agreement or otherwise, as it may determine, complete the work, or any part thereof; and for such completion the City for itself or for its Contractor may take possession of and use or cause to be used in the completion of the work thereof any of such materials, apparatus, machinery, implements, and tools of every description as may be found upon said work. Termination pursuant to this paragraph shall not entitle the Contractor to any claim for damages on account thereof, nor shall it relieve the Contractor of any liability under this Contract.
- XII. GOVERNING LAW.** This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.
- XIII. SEVERABILITY.** The provisions of this Contract are severable. If any section, paragraph, clause or provision of this Contract shall be finally adjudicated by a court of competent jurisdiction to be invalid, the remainder of this Contract shall be unaffected by such adjudication and all of the remaining provisions of this Contract shall remain in full force and effect as though such section, paragraph, clause or provision, or any part thereof so adjudicated to be invalid, had not been included herein, unless such remaining provisions, standing alone, are incomplete and incapable of being executed in accordance with the intent of the parties to this Contract.
- XIV. AMENDMENTS TO THIS CONTRACT.** This Contract may not be amended except in writing executed in the same manner as this CITY-CONTRACTOR Agreement.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed under seal the day and year first above written.

**CONTRACTOR**

By \_\_\_\_\_  
Print Name \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

*Affix Corporate Seal Here*

I hereby certify that funds are available in the  
following account numbers:  
31OC921 - 52407

I further certify that the Mayor, or his designee,  
is authorized to execute contracts and approve  
change orders.

By \_\_\_\_\_  
*Comptroller of Accounts*

Date \_\_\_\_\_

**CITY OF NEWTON**

By \_\_\_\_\_  
*Chief Procurement Officer*

Date \_\_\_\_\_

By \_\_\_\_\_  
*Commissioner of Public Buildings*

Date \_\_\_\_\_

Approved as to Legal Form and Character

By \_\_\_\_\_  
*Associate City Solicitor*

Date \_\_\_\_\_

**CONTRACT APPROVED**

By \_\_\_\_\_  
*Mayor or his designee*

Date \_\_\_\_\_

## CERTIFICATE OF AUTHORITY - CORPORATE

1. I hereby certify that I am the Clerk/Secretary of \_\_\_\_\_  
(insert full name of Corporation)
2. corporation, and that \_\_\_\_\_  
(insert the name of officer who signed the **contract and bonds.**)
3. is the duly elected \_\_\_\_\_  
(insert the title of the officer in line 2)
4. of said corporation, and that on \_\_\_\_\_  
(insert a date that is ***ON OR BEFORE*** the date the officer signed the **contract and bonds.**)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. \_\_\_\_\_ the \_\_\_\_\_  
(insert **name** from line 2) (insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: \_\_\_\_\_ *AFFIX CORPORATE  
SEAL HERE*  
(Signature of **Clerk or Secretary**)\*
7. Name: \_\_\_\_\_  
(Please print or type name in line 6)\*
8. Date: \_\_\_\_\_  
(insert a date that is ***ON OR AFTER*** the date the officer signed the **contract and bonds.**)

\* The name and signature inserted in lines 6 & 7 must be that of the Clerk or Secretary of the corporation.

## CERTIFICATION OF TAX COMPLIANCE

Pursuant to M.G.L. c.62C, §49A and requirements of the City, the undersigned acting on behalf of the Contractor certifies under the penalties of perjury that the Contractor is in compliance with all laws of the Commonwealth relating to taxes including payment of all local taxes, fees, assessments, betterments and any other local or municipal charges (unless the Contractor has a pending abatement application or has entered into a payment agreement with the entity to which such charges were owed), reporting of employees and contractors, and withholding and remitting child support.\*

\_\_\_\_\_  
\*\*Signature of Individual  
or Corporate Contractor (Mandatory)

\_\_\_\_\_  
\*\*\* Contractor's Social Security Number  
(Voluntary) or Federal Identification Number

Print Name:\_\_\_\_\_

By: \_\_\_\_\_  
Corporate Officer  
(Mandatory, if applicable)

Date: \_\_\_\_\_

Print Name:\_\_\_\_\_

\* The provision in this Certification relating to child support applies only when the Contractor is an individual.

\*\* Approval of a contract or other agreement will not be granted until the City receives a signed copy of this Certification.

\*\*\* Your social security number may be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended.

**CITY OF NEWTON, MASSACHUSETTS**

**PERFORMANCE BOND**

Know All Men By These Presents:

That we, \_\_\_\_\_ as PRINCIPAL, and \_\_\_\_\_, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of \_\_\_\_\_, 2014, for the construction of \_\_\_\_\_ in Newton, Massachusetts.  
(Project Title)

Now, the condition of this obligation is such that if the PRINCIPAL and all Sub-contractors under said contract shall well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said contract on its part to be kept and performed during the original term of said contract and any extensions thereof that may be granted by the Obligee, with or without notice to the SURETY, and during the life and any guarantee required under the contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise, it shall remain in full force, virtue and effect.

In the event, that the contract is abandoned by the PRINCIPAL, or in the event that the Obligee terminates the employment of the PRINCIPAL or the authority of the PRINCIPAL to continue the work said SURETY hereby further agrees that said SURETY shall, if requested in writing by the Obligee, take such action as is necessary to complete said contract.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this \_\_\_\_day of \_\_\_\_\_, 2014.

PRINCIPAL

SURETY

\_\_\_\_\_

\_\_\_\_\_

BY \_\_\_\_\_  
(SEAL)

BY \_\_\_\_\_  
(ATTORNEY-IN-FACT) (SEAL)

\_\_\_\_\_

(Title)

ATTEST: \_\_\_\_\_

ATTEST: \_\_\_\_\_



# CITY OF NEWTON, MASSACHUSETTS

## PAYMENT BOND

Know All Men By These Presents:

That we, \_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of \_\_\_\_\_, 2014, for the construction of \_\_\_\_\_ in Newton, Massachusetts.  
(Project Title)

Now, the conditions of this obligation are such that if the PRINCIPAL and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c. 30, sec. 39A, and M.G.L. c. 149 sec. 29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force, virtue and effect.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this \_\_\_\_ day of \_\_\_\_\_, 2014.

PRINCIPAL

SURETY

\_\_\_\_\_

\_\_\_\_\_

BY \_\_\_\_\_  
(SEAL)

BY \_\_\_\_\_  
(ATTORNEY-IN-FACT) (SEAL)

\_\_\_\_\_  
(Title)

ATTEST: \_\_\_\_\_

ATTEST: \_\_\_\_\_

# **CITY OF NEWTON**

## **GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**

### **1.0 DEFINITIONS**

#### **1.1 THE CONTRACT DOCUMENTS**

The term "Contract Documents" sometimes also referred to as the "Contract", means the contract entered into between the City of Newton (hereinafter "City") and the Contractor. It includes the Invitation for Bid, General Bid Form, Contract Form, these General Conditions of the Contract, Supplements and Amendments to the General Conditions (if any), Contract Specifications, Drawings, all addenda issued prior to execution of the contract, the Bid Bond, the Labor and Material Payment Bond, or other assurances of completion, the applicable wage rate determinations, and other documents listed in the Agreement and modifications issued after execution of the contract.

#### **1.2 THE WORK**

The term "Work", sometimes also referred to as the "Project", means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligation.

#### **1.3 OWNER**

The term "Owner" is the City of Newton.

#### **1.4 CONTRACT OFFICER**

The term "Contract Officer" means the person appointed by the Owner to administer the terms of the Contract between the Owner and the Contractor, who is also empowered to take certain actions under this Agreement.

#### **1.5 CONTRACTOR**

1.5.1 The Contractor, sometimes referred to as the General Contractor, is the person or entity identified as such throughout the Contract Documents as if singular in number. The term Contractor means the Contractor or its authorized representative.

1.5.2 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract.

#### **1.6 SUBSTANTIAL COMPLETION**

The term "Substantial Completion" means the value of the work remaining to be performed by the Contractor is, in the estimate of the awarding authority, less than one percent (1%) of the original contract price.

### **2.0 CONTRACT ADMINISTRATION**

#### **2.1 PRE-CONSTRUCTION CONFERENCE**

2.1.1 Prior to commencement of the Work, the Contractor shall meet in conference with representatives of the Owner regarding the Owner's requirements under the Contract for administration of the quality assurance program, safety program, labor provisions, the schedule of work, and other Contract procedures.

2.1.2 The Contractor shall begin work upon receipt of a written Notice to Proceed from the Contract Officer or designee. The Contractor shall not begin work prior to receiving such notice.

## **2.2 CONTRACT PERIOD**

The Contractor shall complete all work required under this contract within the timeframe specified elsewhere in this document, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

## **2.3 REJECTION OF DEFECTIVE MATERIALS AND WORK**

The Owner's inspection of the Work shall not relieve the Contractor of any of its responsibilities to fulfill the Contract obligations, and defective work shall be corrected without cost to the Owner. Unsuitable work may be rejected by the Owner, notwithstanding that such work and materials have been previously overlooked or misjudged by the Owner and accepted for payment. If the Work or any part thereof shall be found defective at any time before the final acceptance of the whole Work, the Contractor shall forthwith correct such defect in a manner satisfactory to the Owner, and if any material brought upon the site for use in the Work, or selected for the same, shall be rejected by the Owner as unsuitable or not in conformity with the Contract requirements, the Contractor shall forthwith remove such materials from the vicinity of the Work.

## **2.4 CHANGES**

2.4.1 All changes in the work including any increase, decrease, or other equitable adjustment in the Contract price or in the time for performing the Contract, shall be authorized in writing by the Owner and/or Contract Officer prior to commencement.

2.4.2 For work performed by a Sub-Contractor, the cost to the Owner shall be the net cost to the Sub-Contractor plus an allowance for overhead and profit not to exceed ten percent (10%) for the Sub-Contractor's overhead and profit, plus an allowance not to exceed five percent (5%) for the General Contractor's Overhead and profit on Sub-Contractor's work.

2.4.3 For work performed by the General Contractor, the cost to the Owner shall be the net cost to the Contractor plus an allowance for overhead and profit not to exceed fifteen percent (15%) of the net cost.

## **2.5 CONTRACT PRICE**

The Contract Price is stated in the Contract Form, and including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

## **2.6 APPLICATIONS FOR PAYMENT**

2.6.1 Once each month, on a date established by the Owner at the beginning of the Work, the Contractor shall deliver to the Owner an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Owner may require, and reflecting a minimum of 5% retainage until the final acceptance and payment by the Owner.

2.6.2 The Owner shall make payment to the Contractor within 30 days of receipt of said application, less any applicable retainage.

2.6.3 The Owner may make changes in any application for payment submitted by the Contractor for:

- i. Retention based on the value of its claims against the Contractor,
- ii. Retention of 5% of the approved amount of the Application for Payment.

## **2.7 FINAL PAYMENT**

The acceptance by the Contractor of the last payment due under this Contract or the execution of the Final Certificate of Completion, shall operate as a release to the Owner from all claims and liability related to this Contract.

## **2.8 GUARANTY AND WARRANTY**

### **2.8.1 WARRANTY**

The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

## 2.8.2 GENERAL GUARANTY

If at any time during the period of one (1) year from the date of Substantial Completion of the Work to be performed under this Contract, any part of the Work shall, in the reasonable determination of the Owner, require replacing or repairing due to the fact that it is broken, defective, or otherwise does not conform to the Contract Documents, the Owner will notify the Contractor to make the required repairs or replacement. If the Contractor shall neglect to commence such repairs or replacement to the satisfaction of the Owner within ten (10) days from the date of giving or mailing such notice, then the Owner may employ other persons to make the same. The Contractor agrees, upon demand, to pay to the Owner all amounts which the Owner expends for such repairs or replacements. During this one year guarantee period any corrective work shall be performed in accordance with the applicable terms of this Contract. For items of work completed after use and occupancy has been taken, the one year guarantee shall commence at the time the Owner accepts such items. This one year guarantee shall not limit any express guaranty or warranty provided elsewhere in the Contract.

## 2.9 INSURANCE REQUIREMENTS

2.9.1 The Contractor shall provide insurance coverage as listed below. This insurance shall be provided at the Contractor's expense and shall be in full force and effect during the full term of this Contract.

### WORKER'S COMPENSATION

Worker's Compensation: Per M.G.L. c.. 149, s. 34 and c.. 152 as amended.

### COMMERCIAL GENERAL LIABILITY

Personal Injury	\$500,000 each occurrence \$1,000,000 aggregate
Property Damage	\$500,000 each occurrence \$1,000,000 aggregate

### VEHICLE LIABILITY

Personal Injury	\$500,000 each person \$1,000,000 aggregate
Property Damage	\$300,000 each occurrence \$500,000 aggregate

## 2.9.2 OWNER AS CO-INSURED

The Owner shall be named as additional insureds on the Contractor's Liability Policies.

## 2.9.3 CERTIFICATES OF INSURANCE, POLICIES

- i. The Contractor shall not commence the work until proof of compliance with this Section 2.9 has been furnished to the Owner by submitting one copy of a properly endorsed insurance certificate issued by a company authorized to write insurance in the Commonwealth. This certificate shall indicate that the contractual liability coverage is in force.
- ii. The Contractor shall file the original and one certified copy of all policies with the Owner within fifteen (15) days after contract award. If the Owner is damaged by the Contractor's failure to maintain such insurance and to so notify the Owner, then the Contractor shall be responsible for all reasonable costs attributable thereto.

## 2.9.4 CANCELLATION

Cancellation of any insurance required by this contract, whether by the insurer or the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and Owner at least thirty days prior to the effective date thereof, which shall be expressed in said notice.

## 2.10 INDEMNIFICATION

The Contractor shall take all responsibility for the Work and take all precautions for preventing injuries to persons and property in or about the Work; shall bear all losses resulting to or on account of the amount or character of the Work. The Contractor shall pay or cause payment to be made for all labor performed or furnished and for all materials used or employed in carrying out this Contract. The Contractor shall assume the defense of, and indemnify and save harmless the Owner, and the Owner's officers and

agents from all claims relating to labor performed or furnished and materials used or employed for the Work; to inventions, patents and patent rights used in and in doing the Work unless such patent infringement is due to a product or process specified by the Owner; to injuries to any person or corporation received or sustained by or from the Contractor and any employees, and subcontractors and employees, in doing the work, or in consequence of any improper materials, implements or labor used or employed therein; and to any act, omission or neglect of the Contractor and any employees therein.

## **2.11 BONDS**

The Contractor shall provide the Owner with a performance and with a payment or labor and materials bond in the form provided by the Owner, executed by a surety company licensed by the Commonwealth of Massachusetts' Division of Insurance. Such bond shall be in an amount equal to at least one half of the Contract price unless otherwise stated in the Contract Documents. All bonds shall be accompanied by a current power of attorney.

## **2.12 TERMINATION**

### **2.12.1 TERMINATION FOR CAUSE**

- i. The Owner may terminate this contract for cause if it determines that any of the following circumstances have occurred:
  - a. The Contractor is adjudged bankrupt or has made a general assignment for the benefit of its creditors.
  - b. A receiver has been appointed of the Contractor's property.
  - c. All or a part of the Work has been abandoned.
  - d. The Contractor has sublet or assigned all or any portion of the Work, the Contract, or claims thereunder, without the prior written consent of the Owner, except as provided in the Contract.
  - e. The Owner has determined that the rate of progress required on the project is not being met.
  - f. The Contractor has substantially violated any provisions of this Contract.
- ii. The Owner may complete the Work, or any part thereof, and charge its expense of so completing the Work or part thereof, to the Contractor.
- iii. The Owner may take possession of and use any materials, machinery, implements and tools found upon the site of said Work. The Owner shall not be liable for any depreciation, loss or damage to said materials, machinery, implements or tools during said use and the Contractor shall be solely responsible for their removal from the Project site after the Owner has no further use for them.

### **2.12.2 TERMINATION - NO FAULT**

- i. In the event that this Contract is terminated by the Owner, prior to the completion of construction and termination is not based on a reason listed in Paragraph 2.12.1, the Contractor shall be compensated for its costs incurred on the Project, including reasonable costs of de-mobilization, covering the period of time between the last approved application for payment and the date of termination.
- ii. Payment by the Owner pursuant to Section 2.7 shall be considered to fully compensate the Contractor for all claims and expenses and those of any consultants, subcontractors, and suppliers, directly or indirectly attributable to the termination, including any claims for lost profits.

## **2.13 PERMITS, FEES, AND NOTICES**

- 2.13.1 The Contractor shall secure and the Owner shall pay for the building permit, if required. The Contractor shall coordinate all efforts required to obtain this permit. All other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work shall be secured and paid for by the Contractor.
- 2.13.2 The Contractor shall comply with and give notices required by laws, ordinances rules, regulations, and lawful orders of public authorities bearing on performance of the Work.
- 2.13.3 If the Contractor performs Work that it knows or reasonably should know is contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Owner, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs.

## **2.14 SAFETY REQUIREMENTS**

- 2.14.1 The Contractor shall comply with all Federal, State, and local safety laws and regulations applicable to the Work performed under this Contract.

## **2.15 TEMPORARY HEATING**

Not required. Do not install Removal & Installation of Gym Flooring in any space which is not heated properly.

## **2.16 AVAILABILITY AND USE OF UTILITY SERVICES**

- 2.16.1 The City shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the Contract. Unless otherwise provided in the Contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the City or, where the utility is produced by the City, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

## **2.17 DISPUTES**

- 2.17.1 "Claim," as used in this section, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the Contract, unlike a claim relating to the Contract, is a claim that can be resolved under a Contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this section, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- 2.17.2 All disputes arising under or relating to this Contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this section.
- 2.17.3 All claims by the Contractor shall be made in writing and submitted to the Contract Officer for a written decision. A claim by the City against the Contractor shall be subject to a written decision by the Contract Officer.
- 2.17.4 The Contract Officer shall, within thirty (30) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- 2.17.5 The Contract Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the City, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within thirty (30) days after receipt of the Contract Officer's decision.
- 2.17.6 The Contractor shall proceed diligently with performance of this Contract and/or any authorized change thereof, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the Contract and/or any authorized change thereof, and comply with any decision of the Contract Officer.

## **2.18 LIQUIDATED DAMAGES**

- 2.18.1 If the Contractor fails to complete the Work within the time specified in the contract, or any extension thereof, the Contractor shall pay to the City as liquidated damages, the sum of \$800.00 for each day of delay. Completion dates are specified in the Contract for separate phases of the work, and the amount of liquidated damages shall be assessed on each and every phase which is delayed. In the context of this paragraph, "delay" means failure to provide installed and complete Removal & Installation of Gym Flooring on the date required by Peabody Construction, who is the Owner's Contractor for the Phase 2 Renovation project at Angier Elementary School. To the extent that the Contractor's delay or nonperformance is excused under another section in this Contract, liquidated damages shall not be due the City. The Contractor remains liable for damages caused other than by delay.
- 2.18.2 If the City terminates the Contractor's right to proceed pursuant to section 2.12.1, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the Work together with any increased costs to the City in completing the Work.

- 2.18.3 If the City does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the Work is completed or accepted.

### **3.0 SALES TAX EXEMPTION AND OTHER TAXES**

- 3.0.1 To the extent that materials and supplies are used or incorporated in the performance of this Contract, the Contractor is considered an exempt purchaser under the Massachusetts Sales Act, Chapter 14 of the Acts of 1966.
- 3.0.2 The Contractor shall be responsible for paying all other taxes and tariffs of any sort, related to the Work.

### **3.1 PROHIBITION AGAINST LIENS**

The Contractor is prohibited from placing a lien on the City's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

### **3.2 ORDER OF PRECEDENCE**

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between the Contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

### **3.3 EXAMINATION AND RETENTION OF CONTRACTOR'S RECORDS**

The City of Newton shall, until three (3) years after final payment under this Contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this Contract for the purpose of making audit, examination, excerpts, and/or transcriptions.

## **END OF GENERAL CONDITIONS**

**PUBLIC BUILDING MAINTENANCE CONTRACT  
SUPPLEMENTAL CONDITIONS  
COMMONWEALTH OF MASSACHUSETTS & CITY OF NEWTON**

INDEX

PAGE #	
	Article 1 - Method of Paying Subcontractors (MGL. C.30, s.39F) ..... 32
	Article 2 - Method of Paying General Contractors (MGL. C.30, s.39K) ..... 33
	Article 3 - Claims for Unforeseen Conditions (MGL. C.30, s.39N) ..... 34
	Article 4 - Claims for Delay (MGL. C.30, s.390) ..... 34
	Article 5 - Decisions and Approvals by Engineer or Architect (MGL. C.30, s.39P) ..... 35
	Article 6 - Preference in Employment, Wages (MGL. C.149, s.26) ..... 35
	Article 7 - Hours of Work (MGL. C.149, s.34) ..... 35
	Article 8 - Work by Foreign Corporations (MGL. C.30, s.39L) ..... 36



## **SUPPLEMENTAL CONDITIONS - COMMONWEALTH OF MASSACHUSETTS**

### **Article 1. METHOD OF PAYING SUBCONTRACTORS**

**(General Laws, Chapter 30, Section 39F as most recently amended by Chapter 450, §76 of the Acts of 1996)**

(1.) Every contract awarded pursuant to section forty-four A to L, inclusive, of chapter one hundred and forty-nine shall contain the following subparagraphs (a) through (i) and every contract awarded pursuant to section thirty-nine M of chapter thirty shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the general contractor and each subcontractor.

(a) Forthwith after the general contractor receives payment on account of a periodic estimate, the general contractor shall pay to each subcontractor the amount paid for the labor performed and the materials furnished by the subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(b) Not later than the sixty-fifth day after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor, and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand direct payment of the balance from the awarding authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

(e) Within fifteen days after receipt of the demand by the awarding authority, but in no event prior to the seventieth day after substantial completion of the subcontract work, the awarding authority shall make direct payment to the subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor, less any amount (i) retained by the awarding authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the general contractor in the sworn reply; provided, that the awarding authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by subparagraph (d). The awarding authority shall make further direct payments to the subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The awarding authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of subparagraph (e) in an interest-bearing joint account in the names of the general contractor and the subcontractor in a bank in Massachusetts selected by the awarding authority or agreed upon by the general contractor and the subcontractor and shall notify the general contractor and the subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the

amount in the account, including accrued interest, as provided in an agreement between the general contractor and the subcontractor or as determined by a decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account for accounts in a bank pursuant to subparagraph (f) shall be made out of amounts payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of the such payment.

(h) The awarding authority shall deduct from payments to a general contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from subcontractors. All such amounts shall be earmarked for such direct payments, and the subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the general contractor.

(i) If the subcontractor does not receive payment as provided in subparagraph (a) or if the general contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the subcontractor and the subcontractor does not receive payment for same when due less the deductions provided for in subparagraph (a), the subcontractor may demand direct payment by following the procedure in subparagraph (d) and the general contractor may file a sworn reply as provided in that same subparagraph. A demand made after the first day of the month following that for which the subcontractor performed or furnished the labor and materials for which the subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the general contractor. Thereafter the awarding authority shall proceed as provided in subparagraph (e), (f), (g) and (h).

## **Article 2. METHOD OF PAYING GENERAL CONTRACTORS**

**(General Laws, Chapter 30, Section 39K as most recently amended by Chapter 145 of the Acts of 1991 and Chapter 151 of the Acts of 1993.)**

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph:--Within fifteen days (forty-five days in the case of the commonwealth, including local housing authorities) after receipt from the contractor, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make a periodic payment to the contractor for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the contractor has title or to which a subcontractor has title and has authorized the contractor to transfer title to the awarding authority, less (1) a retention based on its estimate of the fair value of its claims against the contractor and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, and less (3) a retention not exceeding five per cent of the approved amount of the periodic payment. After the receipt of a periodic estimate requesting final payment and within sixty-five days after (a) the contractor fully completes the work or substantially completes the work so that the value of the work remaining to be done is, in the estimate of the awarding authority, less than one per cent of the original contract price, or (b) the contractor substantially completes the work and the awarding authority takes possession for occupancy, whichever occurs first, the awarding authority shall pay the contractor the entire balance due on the contract less (1) a retention based on its estimate of the fair value of its claims against the contractor and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to subcontractors based on demands for same in accordance with the provisions of section thirty-nine F, or based on the record of payments by the contractor to the subcontractors under this contract if such record of payment indicates that the contractor has not paid subcontractors as provided in section thirty-nine F. If the awarding authority fails to make payment as herein provided, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor; provided, that no interest shall be due, in any event, on the amount due on a periodic estimate for final payment until fifteen days (twenty-four days in the case of the commonwealth) after receipt of such a periodic estimate from the contractor, at the place designated by the awarding authority if such a place is so designated. The contractor agrees to pay to each subcontractor a portion of any such interest paid in accordance with the amount due each subcontractor.

The awarding authority may make changes in any periodic estimate submitted by the contractor and the payment due on said periodic estimate shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the awarding authority may, within seven days after receipt, return to the contractor for correction, any periodic estimate which is not in the

required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first working day thereafter. The provisions of section thirty-nine G shall not apply to any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building to which this section applies.

All periodic estimates shall be submitted to the awarding authority, or to its designee as set forth in writing to the contractor, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed subtrade and each sub-subtrade listed in sub-bid form as required by specifications and a column listing the amount paid to each subcontractor and sub-subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the contractor has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

### **Article 3. CLAIMS FOR UNFORESEEN CONDITIONS**

**(General Laws, Chapter 30, Section 39N as most recently amended by Chapter 774 of the Acts of 1972)**

Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an awarding authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing, investigation and settlement of such claims:

If, during the progress of the work, the contractor or the awarding authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a contractor, or upon its own initiative, the contracting authority shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

### **Article 4. CLAIMS FOR DELAY**

**(General Laws, Chapter 30, Section 390 as added by Chapter 116 of the Acts of 1973)**

Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the awarding authority increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor against the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority; provided however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the awarding authority to act within the time specified in this contract, the awarding authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase; and provided further, that the awarding authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing, as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this contract and, except for costs due to a suspension order, the awarding authority shall not approve any costs in

the claim incurred more than twenty days before the general contractor notified the awarding authority in writing of the act of failure to act involved in the claim.

## **Article 5. DECISIONS AND APPROVALS BY ENGINEER OR ARCHITECT**

**(General Laws, Chapter 30, Section 39P, as added by Chapter 1164 of the Acts of 1973)**

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the awarding authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

## **Article 6. PREFERENCE IN EMPLOYMENT, WAGES**

**(General Laws, Chapter 149 Section 26 as most recently amended by Chapter 665 of the Acts of 1986 and Chapter 552 of the Acts of 1991).**

In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the commonwealth, or by a county, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the commonwealth who have been residents of the commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause Forty-third of section seven of chapter four, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the commonwealth generally who have been residents of the commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided, further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service of the town paying the highest rate; provided, further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings in the private construction industry between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established, provided, further that in towns where no such rate or rates have been so established, the wages paid to mechanics and apprentices, teamster, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the commonwealth or of a county, town or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriation of more than One Thousand Dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided.

## **Article 7. HOURS OF WORK**

**(General Laws, Chapter 149 Section 34 as most recently amended by Chapter 552 of the Acts of 1991).**

Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the commonwealth or any county or town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the commonwealth, in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in case of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day, except as aforesaid, provided, that in contracts entered into by the department of highways for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said department, or any contractor or subcontractor for said department, may employ laborers, workmen, mechanics, foremen and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the

commissioner of labor and industries, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

## **Article 8. WORK BY FOREIGN CORPORATIONS**

**(General Laws, Chapter 30 Section 39L, as most recently amended by Chapter 3 of the Acts of 1967).**

The Commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or sub bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such awarding authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the Commonwealth.

## **END OF SUPPLEMENTAL CONDITIONS**



# **CITY OF NEWTON**

## **WAGE RATE REQUIREMENTS**

### **1. GENERAL**

- A.** This section summarizes the requirements for the payment of wages to laborers and mechanics employed under the Contract.
- B.** Other duties and requirements of law which may not be specified in this section apply and are inherently a part of the Contract.

### **2. WAGE RATES**

- A.** The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of Labor and Industries. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract.
- B.** Keep posted on the site a legible copy of said schedule. Keep on file the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Administrator, or the Architect.
- C.** Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.
- D.** Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by M.G.L. c149, Sec. 34B, as amended. Such police officers shall be covered by Workmen's Compensation Insurance and Employers Liability Insurance by the Contractor.
- E.** The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B. The Contractor is obligated to provide such records to the City directly on a weekly basis. The City may assess a penalty of \$100 for each day beyond the required submission date that such records are received, which amount shall be deducted from any amounts to the Contractor from the City. In the event of chronic late submissions, the City shall report the same to the Office of the Attorney General.
- F.** The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.
- G.** The Contractor shall maintain accurate and complete records, including payroll records, during the Contract term and for three years thereafter.

**END OF SECTION**



DEVAL L. PATRICK  
Governor

THE COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT  
DEPARTMENT OF LABOR STANDARDS

**Prevailing Wage Rates**

As determined by the Director under the provisions of the  
Massachusetts General Laws, Chapter 149, Sections 26 to 27H

RACHEL KAPRIELIAN  
Secretary  
HEATHER E. ROWE  
Director

Awarding Authority: City of Newton  
Contract Number: #14-105 City/Town: NEWTON  
Description of Work: Bigelow Middle School Main Entry Renovation  
Job Location: 42 Vernon Street

**Information about Prevailing Wage Schedules for Awarding Authorities and Contractors**

- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- Awarding authorities must request an updated wage schedule from the Department of Labor Standards ("DLS") if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project. The wage schedule must be posted in a conspicuous place at the work site during the life of the project in accordance with M.G.L. c. 149, § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- All apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Training (DAT). Apprentices must keep his/her apprentice identification card on his/her person during all work hours on the project. If an apprentice rate is listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **If an apprentice rate is not listed on the prevailing wage schedule for the trade in which an apprentice is registered with the DAT, the apprentice must be paid the journeyworker's rate for the trade.**
- The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule. Awarding authorities are required to request these updates no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor. Contractors are required to obtain the wage schedules from awarding authorities, and to pay no less than these rates to covered workers. The annual update requirement is not applicable to 27F "rental of equipment" contracts.
- Every contractor or subcontractor which performs construction work on the project is required to submit weekly payroll reports directly to the awarding authority and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. A sample of a payroll reporting form may be obtained at <http://www.mass.gov/dols/pw>.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may report the violation to the Fair Labor Division of the office of the Attorney General at (617) 727-3465.
- Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
<b>Construction</b>						
<b>(2 AXLE) DRIVER - EQUIPMENT</b>						
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2013	\$32.05	\$9.41	\$8.80	\$0.00	\$50.26
	06/01/2014	\$32.40	\$9.41	\$8.80	\$0.00	\$50.61
	08/01/2014	\$32.40	\$9.91	\$8.80	\$0.00	\$51.11
	12/01/2014	\$32.40	\$9.91	\$9.33	\$0.00	\$51.64
	06/01/2015	\$32.75	\$9.91	\$9.33	\$0.00	\$51.99
	08/01/2015	\$32.75	\$10.41	\$9.33	\$0.00	\$52.49
	12/01/2015	\$32.75	\$10.41	\$10.08	\$0.00	\$53.24
	06/01/2016	\$33.25	\$10.41	\$10.08	\$0.00	\$53.74
	08/01/2016	\$33.25	\$10.91	\$10.08	\$0.00	\$54.24
	12/01/2016	\$33.25	\$10.91	\$10.89	\$0.00	\$55.05
<b>(3 AXLE) DRIVER - EQUIPMENT</b>						
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2013	\$32.12	\$9.41	\$8.80	\$0.00	\$50.33
	06/01/2014	\$32.47	\$9.41	\$8.80	\$0.00	\$50.68
	08/01/2014	\$32.47	\$9.91	\$8.80	\$0.00	\$51.18
	12/01/2014	\$32.47	\$9.91	\$9.33	\$0.00	\$51.71
	06/01/2015	\$32.82	\$9.91	\$9.33	\$0.00	\$52.06
	08/01/2015	\$32.82	\$10.41	\$9.33	\$0.00	\$52.56
	12/01/2015	\$32.82	\$10.41	\$10.08	\$0.00	\$53.31
	06/01/2016	\$33.32	\$10.41	\$10.08	\$0.00	\$53.81
	08/01/2016	\$33.32	\$10.91	\$10.08	\$0.00	\$54.31
	12/01/2016	\$33.32	\$10.91	\$10.89	\$0.00	\$55.12
<b>(4 &amp; 5 AXLE) DRIVER - EQUIPMENT</b>						
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2013	\$32.24	\$9.41	\$8.80	\$0.00	\$50.45
	06/01/2014	\$32.59	\$9.41	\$8.80	\$0.00	\$50.80
	08/01/2014	\$32.59	\$9.91	\$8.80	\$0.00	\$51.30
	12/01/2014	\$32.59	\$9.91	\$9.33	\$0.00	\$51.83
	06/01/2015	\$32.94	\$9.91	\$9.33	\$0.00	\$52.18
	08/01/2015	\$32.94	\$10.41	\$9.33	\$0.00	\$52.68
	12/01/2015	\$32.94	\$10.41	\$10.08	\$0.00	\$53.43
	06/01/2016	\$33.44	\$10.41	\$10.08	\$0.00	\$53.93
	08/01/2016	\$33.44	\$10.91	\$10.08	\$0.00	\$54.43
	12/01/2016	\$33.44	\$10.91	\$10.89	\$0.00	\$55.24
<b>ADS/SUBMERSIBLE PILOT</b>						
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2013	\$84.21	\$9.80	\$18.17	\$0.00	\$112.18
	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
<b>AIR TRACK OPERATOR</b>						
LABORERS - ZONE 1	12/01/2013	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 2 of 40



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. <i>HEAT &amp; FROST INSULATORS LOCAL 6 (BOSTON)</i>	12/01/2013	\$30.68	\$10.40	\$5.95	\$0.00	\$47.03
	06/01/2014	\$31.58	\$10.40	\$5.95	\$0.00	\$47.93
	12/01/2014	\$32.48	\$10.40	\$5.95	\$0.00	\$48.83
	06/01/2015	\$33.43	\$10.40	\$5.95	\$0.00	\$49.78
	12/01/2015	\$34.38	\$10.40	\$5.95	\$0.00	\$50.73
ASPHALT RAKER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER <i>LABORERS - ZONE 1</i>	12/01/2013	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER <i>BOILERMAKERS LOCAL 29</i>	01/01/2010	\$37.70	\$6.97	\$11.18	\$0.00	\$55.85

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 3 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - BOILERMAKER - Local 29

Effective Date - 01/01/2010

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
2	65	\$24.51	\$6.97	\$11.18	\$0.00	\$42.66
3	70	\$26.39	\$6.97	\$11.18	\$0.00	\$44.54
4	75	\$28.28	\$6.97	\$11.18	\$0.00	\$46.43
5	80	\$30.16	\$6.97	\$11.18	\$0.00	\$48.31
6	85	\$32.05	\$6.97	\$11.18	\$0.00	\$50.20
7	90	\$33.93	\$6.97	\$11.18	\$0.00	\$52.08
8	95	\$35.82	\$6.97	\$11.18	\$0.00	\$53.97

Notes:

Apprentice to Journeyworker Ratio:1:5

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	02/01/2014	\$48.06	\$10.18	\$18.15	\$0.00	\$76.39
BRICKLAYERS LOCAL 3 (NEWTON)	08/01/2014	\$48.96	\$10.18	\$18.22	\$0.00	\$77.36
	02/01/2015	\$49.52	\$10.18	\$18.22	\$0.00	\$77.92
	08/01/2015	\$50.42	\$10.18	\$18.29	\$0.00	\$78.89
	02/01/2016	\$50.99	\$10.18	\$18.29	\$0.00	\$79.46
	08/01/2016	\$51.89	\$10.18	\$18.37	\$0.00	\$80.44
	02/01/2017	\$52.46	\$10.18	\$18.37	\$0.00	\$81.01

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 4 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - BRICK/PLASTER/CEMENT MASON - Local 3 Newton

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.03	\$10.18	\$18.15	\$0.00	\$52.36
2	60	\$28.84	\$10.18	\$18.15	\$0.00	\$57.17
3	70	\$33.64	\$10.18	\$18.15	\$0.00	\$61.97
4	80	\$38.45	\$10.18	\$18.15	\$0.00	\$66.78
5	90	\$43.25	\$10.18	\$18.15	\$0.00	\$71.58

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.48	\$10.18	\$18.22	\$0.00	\$52.88
2	60	\$29.38	\$10.18	\$18.22	\$0.00	\$57.78
3	70	\$34.27	\$10.18	\$18.22	\$0.00	\$62.67
4	80	\$39.17	\$10.18	\$18.22	\$0.00	\$67.57
5	90	\$44.06	\$10.18	\$18.22	\$0.00	\$72.46

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
---	------------	---------	---------	---------	--------	---------

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN LABORERS - FOUNDATION AND MARINE	12/01/2013	\$34.45	\$7.30	\$12.90	\$0.00	\$54.65
	06/01/2014	\$35.20	\$7.30	\$12.90	\$0.00	\$55.40
	12/01/2014	\$35.95	\$7.30	\$12.90	\$0.00	\$56.15
	06/01/2015	\$36.70	\$7.30	\$12.90	\$0.00	\$56.90
	12/01/2015	\$37.45	\$7.30	\$12.90	\$0.00	\$57.65
	06/01/2016	\$38.20	\$7.30	\$12.90	\$0.00	\$58.40
	12/01/2016	\$39.20	\$7.30	\$12.90	\$0.00	\$59.40

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER LABORERS - FOUNDATION AND MARINE	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25

For apprentice rates see "Apprentice- LABORER"

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 5 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CAISSON & UNDERPINNING TOP MAN <i>LABORERS - FOUNDATION AND MARINE</i>	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER <i>CARPENTERS -ZONE 2 (Eastern Massachusetts)</i>	03/01/2014	\$34.78	\$9.80	\$15.91	\$0.00	\$60.49
	09/01/2014	\$35.55	\$9.80	\$15.91	\$0.00	\$61.26
	03/01/2015	\$36.32	\$9.80	\$15.91	\$0.00	\$62.03

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 6 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - CARPENTER - Zone 2 Eastern MA

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.39	\$9.80	\$1.57	\$0.00	\$28.76
2	60	\$20.87	\$9.80	\$1.57	\$0.00	\$32.24
3	70	\$24.35	\$9.80	\$11.20	\$0.00	\$45.35
4	75	\$26.09	\$9.80	\$11.20	\$0.00	\$47.09
5	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
6	80	\$27.82	\$9.80	\$12.77	\$0.00	\$50.39
7	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44
8	90	\$31.30	\$9.80	\$14.34	\$0.00	\$55.44

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.78	\$9.80	\$1.57	\$0.00	\$29.15
2	60	\$21.33	\$9.80	\$1.57	\$0.00	\$32.70
3	70	\$24.89	\$9.80	\$11.20	\$0.00	\$45.89
4	75	\$26.66	\$9.80	\$11.20	\$0.00	\$47.66
5	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
6	80	\$28.44	\$9.80	\$12.77	\$0.00	\$51.01
7	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14
8	90	\$32.00	\$9.80	\$14.34	\$0.00	\$56.14

Notes:

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING  
BRICKLAYERS LOCAL 3 (NEWTON)

01/01/2014	\$43.60	\$10.90	\$18.71	\$1.30	\$74.51
07/01/2014	\$43.77	\$10.90	\$18.71	\$1.30	\$74.68
01/01/2015	\$44.69	\$10.90	\$18.71	\$1.30	\$75.60
07/01/2015	\$45.29	\$10.90	\$18.71	\$1.30	\$76.20
01/01/2016	\$46.21	\$10.90	\$18.71	\$1.30	\$77.12

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 7 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - CEMENT MASONRY/PLASTERING - Eastern Mass (Newton)

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.80	\$10.90	\$12.21	\$1.30	\$46.21
2	60	\$26.16	\$10.90	\$13.71	\$1.30	\$52.07
3	65	\$28.34	\$10.90	\$14.71	\$1.30	\$55.25
4	70	\$30.52	\$10.90	\$15.71	\$1.30	\$58.43
5	75	\$32.70	\$10.90	\$16.71	\$1.30	\$61.61
6	80	\$34.88	\$10.90	\$17.71	\$1.30	\$64.79
7	90	\$39.24	\$10.90	\$18.71	\$1.30	\$70.15

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.89	\$10.90	\$12.21	\$1.30	\$46.30
2	60	\$26.26	\$10.90	\$13.71	\$1.30	\$52.17
3	65	\$28.45	\$10.90	\$14.71	\$1.30	\$55.36
4	70	\$30.64	\$10.90	\$15.71	\$1.30	\$58.55
5	75	\$32.83	\$10.90	\$16.71	\$1.30	\$61.74
6	80	\$35.02	\$10.90	\$17.71	\$1.30	\$64.93
7	90	\$39.39	\$10.90	\$18.71	\$1.30	\$70.30

## Notes:

Steps 3,4 are 500 hrs. All other steps are 1,000 hrs.

Apprentice to Journeyworker Ratio:1:3

CHAIN SAW OPERATOR	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
LABORERS - ZONE 1	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	12/01/2013	\$41.49	\$10.00	\$14.18	\$0.00	\$65.67
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE)	01/01/2014	\$45.91	\$7.85	\$16.10	\$0.00	\$69.86
PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 8 of 40

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.96	\$7.85	\$0.00	\$0.00	\$30.81
2	55	\$25.25	\$7.85	\$3.66	\$0.00	\$36.76
3	60	\$27.55	\$7.85	\$3.99	\$0.00	\$39.39
4	65	\$29.84	\$7.85	\$4.32	\$0.00	\$42.01
5	70	\$32.14	\$7.85	\$14.11	\$0.00	\$54.10
6	75	\$34.43	\$7.85	\$14.44	\$0.00	\$56.72
7	80	\$36.73	\$7.85	\$14.77	\$0.00	\$59.35
8	90	\$41.32	\$7.85	\$15.44	\$0.00	\$64.61

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN  
LABORERS - ZONE 1

12/01/2013	\$33.50	\$7.30	\$12.70	\$0.00	\$53.50
06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50

For apprentice rates see "Apprentice- LABORER"

DEMO: BACKHOE/LOADER/HAMMER OPERATOR  
LABORERS - ZONE 1

12/01/2013	\$34.50	\$7.30	\$12.70	\$0.00	\$54.50
06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50

For apprentice rates see "Apprentice- LABORER"

DEMO: BURNERS  
LABORERS - ZONE 1

12/01/2013	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25

For apprentice rates see "Apprentice- LABORER"

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 9 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: CONCRETE CUTTER/SAWYER <i>LABORERS - ZONE 1</i>	12/01/2013	\$34.50	\$7.30	\$12.70	\$0.00	\$54.50
	06/01/2014	\$35.25	\$7.30	\$12.70	\$0.00	\$55.25
	12/01/2014	\$36.00	\$7.30	\$12.70	\$0.00	\$56.00
	06/01/2015	\$36.75	\$7.30	\$12.70	\$0.00	\$56.75
	12/01/2015	\$37.50	\$7.30	\$12.70	\$0.00	\$57.50
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2013	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	06/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	12/01/2014	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	06/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
	12/01/2015	\$37.25	\$7.30	\$12.70	\$0.00	\$57.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.50	\$7.30	\$12.70	\$0.00	\$53.50
	06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
	12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
	06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
	12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$56.14	\$9.80	\$18.17	\$0.00	\$84.11
	08/01/2014	\$58.24	\$9.80	\$18.17	\$0.00	\$86.21
	08/01/2015	\$60.34	\$9.80	\$18.17	\$0.00	\$88.31
DIVER TENDER <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
DIVER TENDER (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$60.15	\$9.80	\$18.17	\$0.00	\$88.12
	08/01/2014	\$62.40	\$9.80	\$18.17	\$0.00	\$90.37
	08/01/2015	\$64.65	\$9.80	\$18.17	\$0.00	\$92.62
DIVER/SLURRY (EFFLUENT) <i>PILE DRIVER LOCAL 56 (ZONE 1)</i>	08/01/2013	\$84.21	\$9.80	\$18.17	\$0.00	\$112.18
	08/01/2014	\$87.36	\$9.80	\$18.17	\$0.00	\$115.33
	08/01/2015	\$90.51	\$9.80	\$18.17	\$0.00	\$118.48
DRAWBRIDGE OPERATOR (Construction) <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN <i>ELECTRICIANS LOCAL 103</i>	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53



Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - *ELECTRICIAN - Local 103*

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.78	\$13.00	\$0.53	\$0.00	\$31.31
2	40	\$17.78	\$13.00	\$0.53	\$0.00	\$31.31
3	45	\$20.00	\$13.00	\$11.04	\$0.00	\$44.04
4	45	\$20.00	\$13.00	\$11.04	\$0.00	\$44.04
5	50	\$22.23	\$13.00	\$11.37	\$0.00	\$46.60
6	55	\$24.45	\$13.00	\$11.70	\$0.00	\$49.15
7	60	\$26.67	\$13.00	\$12.03	\$0.00	\$51.70
8	65	\$28.89	\$13.00	\$12.37	\$0.00	\$54.26
9	70	\$31.12	\$13.00	\$12.69	\$0.00	\$56.81
10	75	\$33.34	\$13.00	\$13.03	\$0.00	\$59.37

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$18.05	\$13.00	\$0.54	\$0.00	\$31.59
2	40	\$18.05	\$13.00	\$0.54	\$0.00	\$31.59
3	45	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
4	45	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
5	50	\$22.56	\$13.00	\$11.38	\$0.00	\$46.94
6	55	\$24.82	\$13.00	\$11.71	\$0.00	\$49.53
7	60	\$27.07	\$13.00	\$12.04	\$0.00	\$52.11
8	65	\$29.33	\$13.00	\$12.38	\$0.00	\$54.71
9	70	\$31.58	\$13.00	\$12.71	\$0.00	\$57.29
10	75	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89

Notes :

App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

Apprentice to Journeyworker Ratio:2:3\*\*\*

ELEVATOR CONSTRUCTOR	01/01/2012	\$52.45	\$8.78	\$6.96	\$0.00	\$68.19
ELEVATOR CONSTRUCTORS LOCAL 4						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 11 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - ELEVATOR CONSTRUCTOR - Local 4

Effective Date - 01/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$26.23	\$8.78	\$0.00	\$0.00	\$35.01
2	55	\$28.85	\$8.78	\$6.96	\$0.00	\$44.59
3	65	\$34.09	\$8.78	\$6.96	\$0.00	\$49.83
4	70	\$36.72	\$8.78	\$6.96	\$0.00	\$52.46
5	80	\$41.96	\$8.78	\$6.96	\$0.00	\$57.70

Notes:

Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER ELEVATOR CONSTRUCTORS LOCAL 4	01/01/2012	\$38.59	\$8.78	\$6.96	\$0.00	\$54.33
For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"						
FENCE & GUARD RAIL ERECTOR LABORERS - ZONE 1	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice - LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4	11/01/2013	\$38.73	\$10.00	\$13.55	\$0.00	\$62.28
	05/01/2014	\$39.50	\$10.00	\$13.55	\$0.00	\$63.05
For apprentice rates see "Apprentice - OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4	11/01/2013	\$40.15	\$10.00	\$13.55	\$0.00	\$63.70
	05/01/2014	\$40.92	\$10.00	\$13.55	\$0.00	\$64.47
For apprentice rates see "Apprentice - OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY OPERATING ENGINEERS LOCAL 4	11/01/2013	\$21.10	\$10.00	\$13.55	\$0.00	\$44.65
	05/01/2014	\$21.55	\$10.00	\$13.55	\$0.00	\$45.10
For apprentice rates see "Apprentice - OPERATING ENGINEERS"						
FIRE ALARM INSTALLER ELECTRICIANS LOCAL 103	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice - ELECTRICIAN"						
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING ELECTRICIANS LOCAL 103	03/01/2014	\$33.44	\$13.00	\$13.03	\$0.00	\$59.47
	09/01/2014	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89
	03/01/2015	\$34.38	\$13.00	\$13.06	\$0.00	\$60.44
	09/01/2015	\$35.10	\$13.00	\$13.08	\$0.00	\$61.18
	03/01/2016	\$35.81	\$13.00	\$13.10	\$0.00	\$61.91
For apprentice rates see "Apprentice - TELECOMMUNICATIONS TECHNICIAN"						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 12 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIREMAN (ASST. ENGINEER) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$33.76	\$10.00	\$14.18	\$0.00	\$57.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER LABORERS - ZONE 1	12/01/2013	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	06/01/2014	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2014	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	06/01/2015	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2015	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	06/01/2016	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
	12/01/2016	\$20.50	\$7.30	\$12.70	\$0.00	\$40.50
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER FLOORCOVERERS LOCAL 2168 ZONE 1	03/01/2014	\$39.87	\$9.80	\$16.96	\$0.00	\$66.63

**Apprentice - FLOORCOVERER - Local 2168 Zone 1**

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.94	\$9.80	\$1.79	\$0.00	\$31.53
2	55	\$21.93	\$9.80	\$1.79	\$0.00	\$33.52
3	60	\$23.92	\$9.80	\$11.59	\$0.00	\$45.31
4	65	\$25.92	\$9.80	\$11.59	\$0.00	\$47.31
5	70	\$27.91	\$9.80	\$13.38	\$0.00	\$51.09
6	75	\$29.90	\$9.80	\$13.38	\$0.00	\$53.08
7	80	\$31.90	\$9.80	\$15.17	\$0.00	\$56.87
8	85	\$33.89	\$9.80	\$15.17	\$0.00	\$58.86

**Notes:**

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GENERATOR/LIGHTING PLANT/HEATERS OPERATING ENGINEERS LOCAL 4	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) GLAZIERS LOCAL 35 (ZONE 2)	01/01/2014	\$35.41	\$7.85	\$16.10	\$0.00	\$59.36
	07/01/2014	\$36.56	\$7.85	\$16.10	\$0.00	\$60.51
	01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
	07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
	01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
	07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
	01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 13 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - GLAZIER - Local 35 Zone 2

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.71	\$7.85	\$0.00	\$0.00	\$25.56
2	55	\$19.48	\$7.85	\$3.66	\$0.00	\$30.99
3	60	\$21.25	\$7.85	\$3.99	\$0.00	\$33.09
4	65	\$23.02	\$7.85	\$4.32	\$0.00	\$35.19
5	70	\$24.79	\$7.85	\$14.11	\$0.00	\$46.75
6	75	\$26.56	\$7.85	\$14.44	\$0.00	\$48.85
7	80	\$28.33	\$7.85	\$14.77	\$0.00	\$50.95
8	90	\$31.87	\$7.85	\$15.44	\$0.00	\$55.16

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.28	\$7.85	\$0.00	\$0.00	\$26.13
2	55	\$20.11	\$7.85	\$3.66	\$0.00	\$31.62
3	60	\$21.94	\$7.85	\$3.99	\$0.00	\$33.78
4	65	\$23.76	\$7.85	\$4.32	\$0.00	\$35.93
5	70	\$25.59	\$7.85	\$14.11	\$0.00	\$47.55
6	75	\$27.42	\$7.85	\$14.44	\$0.00	\$49.71
7	80	\$29.25	\$7.85	\$14.77	\$0.00	\$51.87
8	90	\$32.90	\$7.85	\$15.44	\$0.00	\$56.19

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS  
OPERATING ENGINEERS LOCAL 4

12/01/2013    \$40.49    \$10.00    \$14.18    \$0.00    \$64.67

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 14 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - OPERATING ENGINEERS - Local 4

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$22.27	\$10.00	\$0.00	\$0.00	\$32.27
2	60	\$24.29	\$10.00	\$14.18	\$0.00	\$48.47
3	65	\$26.32	\$10.00	\$14.18	\$0.00	\$50.50
4	70	\$28.34	\$10.00	\$14.18	\$0.00	\$52.52
5	75	\$30.37	\$10.00	\$14.18	\$0.00	\$54.55
6	80	\$32.39	\$10.00	\$14.18	\$0.00	\$56.57
7	85	\$34.42	\$10.00	\$14.18	\$0.00	\$58.60
8	90	\$36.44	\$10.00	\$14.18	\$0.00	\$60.62

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) SHEETMETAL WORKERS LOCAL 17 - A	02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
	08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
	02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
	08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
	02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
	08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
	02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
	08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) ELECTRICIANS LOCAL 103	03/01/2014	\$44.45	\$13.00	\$14.68	\$0.00	\$72.13
	09/01/2014	\$45.12	\$13.00	\$14.70	\$0.00	\$72.82
	03/01/2015	\$45.84	\$13.00	\$14.72	\$0.00	\$73.56
	09/01/2015	\$46.80	\$13.00	\$14.75	\$0.00	\$74.55
	03/01/2016	\$47.75	\$13.00	\$14.78	\$0.00	\$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) SHEETMETAL WORKERS LOCAL 17 - A	02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
	08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
	02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
	08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
	02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
	08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
	02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
	08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING - WATER) PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
	For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"					

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 15 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
HVAC MECHANIC PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS LABORERS - ZONE 1	12/01/2013	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	06/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	12/01/2014	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	06/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	12/01/2015	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	06/01/2016	\$37.85	\$7.30	\$12.70	\$0.00	\$57.85
	12/01/2016	\$38.85	\$7.30	\$12.70	\$0.00	\$58.85
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) HEAT & FROST INSULATORS LOCAL 6 (BOSTON)	09/01/2013	\$42.11	\$10.95	\$12.10	\$0.00	\$65.16
	09/01/2014	\$44.11	\$10.95	\$12.10	\$0.00	\$67.16

**Apprentice - ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston**

**Effective Date - 09/01/2013**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$21.06	\$10.95	\$9.00	\$0.00	\$41.01
2	60	\$25.27	\$10.95	\$9.62	\$0.00	\$45.84
3	70	\$29.48	\$10.95	\$10.24	\$0.00	\$50.67
4	80	\$33.69	\$10.95	\$10.86	\$0.00	\$55.50

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.06	\$10.95	\$9.00	\$0.00	\$42.01
2	60	\$26.47	\$10.95	\$9.62	\$0.00	\$47.04
3	70	\$30.88	\$10.95	\$10.24	\$0.00	\$52.07
4	80	\$35.29	\$10.95	\$10.86	\$0.00	\$57.10

**Notes:**

Steps are 1 year

**Apprentice to Journeyworker Ratio:1:4**

IRONWORKER/WELDER IRONWORKERS LOCAL 7 (BOSTON AREA)	09/16/2013	\$40.85	\$7.70	\$18.60	\$0.00	\$67.15
	03/16/2014	\$41.19	\$7.70	\$19.25	\$0.00	\$68.14

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 16 of 40

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - IRONWORKER - Local 7 Boston

Effective Date - 09/16/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.51	\$7.70	\$18.60	\$0.00	\$50.81
2	70	\$28.60	\$7.70	\$18.60	\$0.00	\$54.90
3	75	\$30.64	\$7.70	\$18.60	\$0.00	\$56.94
4	80	\$32.68	\$7.70	\$18.60	\$0.00	\$58.98
5	85	\$34.72	\$7.70	\$18.60	\$0.00	\$61.02
6	90	\$36.77	\$7.70	\$18.60	\$0.00	\$63.07

Effective Date - 03/16/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$24.71	\$7.70	\$19.25	\$0.00	\$51.66
2	70	\$28.83	\$7.70	\$19.25	\$0.00	\$55.78
3	75	\$30.89	\$7.70	\$19.25	\$0.00	\$57.84
4	80	\$32.95	\$7.70	\$19.25	\$0.00	\$59.90
5	85	\$35.01	\$7.70	\$19.25	\$0.00	\$61.96
6	90	\$37.07	\$7.70	\$19.25	\$0.00	\$64.02

Notes:

\*\* Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:\*\*

JACKHAMMER & PAVING BREAKER OPERATOR  
LABORERS - ZONE 1

12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

LABORER  
LABORERS - ZONE 1

12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 17 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - LABORER - Zone 1

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.01	\$7.30	\$12.70	\$0.00	\$40.01
2	70	\$23.35	\$7.30	\$12.70	\$0.00	\$43.35
3	80	\$26.68	\$7.30	\$12.70	\$0.00	\$46.68
4	90	\$30.02	\$7.30	\$12.70	\$0.00	\$50.02

Effective Date - 06/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$20.46	\$7.30	\$12.70	\$0.00	\$40.46
2	70	\$23.87	\$7.30	\$12.70	\$0.00	\$43.87
3	80	\$27.28	\$7.30	\$12.70	\$0.00	\$47.28
4	90	\$30.69	\$7.30	\$12.70	\$0.00	\$50.69

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER  
LABORERS - ZONE 1

12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER  
LABORERS - ZONE 1

12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For apprentice rates see "Apprentice- LABORER"

LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER  
LABORERS - ZONE 1

12/01/2013	\$33.50	\$7.30	\$12.70	\$0.00	\$53.50
06/01/2014	\$34.25	\$7.30	\$12.70	\$0.00	\$54.25
12/01/2014	\$35.00	\$7.30	\$12.70	\$0.00	\$55.00
06/01/2015	\$35.75	\$7.30	\$12.70	\$0.00	\$55.75
12/01/2015	\$36.50	\$7.30	\$12.70	\$0.00	\$56.50

For apprentice rates see "Apprentice- LABORER"

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 18 of 40



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
	06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
	12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
	06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
	12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
	06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
	12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
This classification applies to the wholesale removal of standing trees including all associated trimming of branches and limbs, and applies to the removal of branches at locations not on or around utility lines. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS <i>BRICKLAYERS LOCAL 3 - MARBLE &amp; TILE</i>	02/01/2014	\$36.66	\$10.18	\$16.83	\$0.00	\$63.67
	08/01/2014	\$37.37	\$10.18	\$16.90	\$0.00	\$64.45
	02/01/2015	\$37.82	\$10.18	\$16.90	\$0.00	\$64.90
	08/01/2015	\$38.53	\$10.18	\$16.97	\$0.00	\$65.68
	02/01/2016	\$38.98	\$10.18	\$16.97	\$0.00	\$66.13
	08/01/2016	\$39.68	\$10.18	\$17.05	\$0.00	\$66.91
	02/01/2017	\$40.14	\$10.18	\$17.05	\$0.00	\$67.37

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - MARBLE & TILE FINISHER - Local 3 Marble & Tile

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.33	\$10.18	\$16.83	\$0.00	\$45.34
2	60	\$22.00	\$10.18	\$16.83	\$0.00	\$49.01
3	70	\$25.66	\$10.18	\$16.83	\$0.00	\$52.67
4	80	\$29.33	\$10.18	\$16.83	\$0.00	\$56.34
5	90	\$32.99	\$10.18	\$16.83	\$0.00	\$60.00

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.69	\$10.18	\$16.90	\$0.00	\$45.77
2	60	\$22.42	\$10.18	\$16.90	\$0.00	\$49.50
3	70	\$26.16	\$10.18	\$16.90	\$0.00	\$53.24
4	80	\$29.90	\$10.18	\$16.90	\$0.00	\$56.98
5	90	\$33.63	\$10.18	\$16.90	\$0.00	\$60.71

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS, TILELAYERS & TERRAZZO MECH	02/01/2014	\$48.10	\$10.18	\$18.15	\$0.00	\$76.43
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2014	\$49.00	\$10.18	\$18.22	\$0.00	\$77.40
	02/01/2015	\$49.56	\$10.18	\$18.22	\$0.00	\$77.96
	08/01/2015	\$50.46	\$10.18	\$18.29	\$0.00	\$78.93
	02/01/2016	\$51.03	\$10.18	\$18.29	\$0.00	\$79.50
	08/01/2016	\$51.93	\$10.18	\$18.37	\$0.00	\$80.48
	02/01/2017	\$52.50	\$10.18	\$18.37	\$0.00	\$81.05

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 20 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.05	\$10.18	\$18.15	\$0.00	\$52.38
2	60	\$28.86	\$10.18	\$18.15	\$0.00	\$57.19
3	70	\$33.67	\$10.18	\$18.15	\$0.00	\$62.00
4	80	\$38.48	\$10.18	\$18.15	\$0.00	\$66.81
5	90	\$43.29	\$10.18	\$18.15	\$0.00	\$71.62

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$24.50	\$10.18	\$18.22	\$0.00	\$52.90
2	60	\$29.40	\$10.18	\$18.22	\$0.00	\$57.80
3	70	\$34.30	\$10.18	\$18.22	\$0.00	\$62.70
4	80	\$39.20	\$10.18	\$18.22	\$0.00	\$67.60
5	90	\$44.10	\$10.18	\$18.22	\$0.00	\$72.50

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 1) MILLWRIGHTS LOCAL 1121 - Zone 1	10/01/2013	\$35.20	\$9.80	\$16.01	\$0.00	\$61.01
	04/01/2014	\$35.98	\$9.80	\$16.01	\$0.00	\$61.79
	10/01/2014	\$36.93	\$9.80	\$16.01	\$0.00	\$62.74
	04/01/2015	\$37.89	\$9.80	\$16.01	\$0.00	\$63.70

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 21 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - MILLWRIGHT - Local 1121 Zone 1

Effective Date - 10/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.36	\$9.80	\$4.40	\$0.00	\$33.56
2	65	\$22.88	\$9.80	\$13.21	\$0.00	\$45.89
3	75	\$26.40	\$9.80	\$14.01	\$0.00	\$50.21
4	85	\$29.92	\$9.80	\$14.81	\$0.00	\$54.53

Effective Date - 04/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	\$19.79	\$9.80	\$4.40	\$0.00	\$33.99
2	65	\$23.39	\$9.80	\$13.21	\$0.00	\$46.40
3	75	\$26.99	\$9.80	\$14.01	\$0.00	\$50.80
4	85	\$30.58	\$9.80	\$14.81	\$0.00	\$55.19

## Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER LABORERS - ZONE 1	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$20.96	\$10.00	\$14.18	\$0.00	\$45.14
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) OPERATING ENGINEERS LOCAL 4	12/01/2013	\$24.43	\$10.00	\$14.18	\$0.00	\$48.61
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II OPERATING ENGINEERS LOCAL 4	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) PAINTERS LOCAL 35 - ZONE 2	01/01/2014	\$45.91	\$7.85	\$16.10	\$0.00	\$69.86
	07/01/2014	\$46.76	\$7.85	\$16.10	\$0.00	\$70.71
	01/01/2015	\$47.66	\$7.85	\$16.10	\$0.00	\$71.61
	07/01/2015	\$48.56	\$7.85	\$16.10	\$0.00	\$72.51
	01/01/2016	\$49.51	\$7.85	\$16.10	\$0.00	\$73.46
	07/01/2016	\$50.46	\$7.85	\$16.10	\$0.00	\$74.41
	01/01/2017	\$51.41	\$7.85	\$16.10	\$0.00	\$75.36

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 22 of 40

Classification

Effective Date Base Wage Health Pension Supplemental Unemployment Total Rate

Apprentice - PAINTER Local 35 - BRIDGES/TANKS

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$22.96	\$7.85	\$0.00	\$0.00	\$30.81
2	55	\$25.25	\$7.85	\$3.66	\$0.00	\$36.76
3	60	\$27.55	\$7.85	\$3.99	\$0.00	\$39.39
4	65	\$29.84	\$7.85	\$4.32	\$0.00	\$42.01
5	70	\$32.14	\$7.85	\$14.11	\$0.00	\$54.10
6	75	\$34.43	\$7.85	\$14.44	\$0.00	\$56.72
7	80	\$36.73	\$7.85	\$14.77	\$0.00	\$59.35
8	90	\$41.32	\$7.85	\$15.44	\$0.00	\$64.61

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.38	\$7.85	\$0.00	\$0.00	\$31.23
2	55	\$25.72	\$7.85	\$3.66	\$0.00	\$37.23
3	60	\$28.06	\$7.85	\$3.99	\$0.00	\$39.90
4	65	\$30.39	\$7.85	\$4.32	\$0.00	\$42.56
5	70	\$32.73	\$7.85	\$14.11	\$0.00	\$54.69
6	75	\$35.07	\$7.85	\$14.44	\$0.00	\$57.36
7	80	\$37.41	\$7.85	\$14.77	\$0.00	\$60.03
8	90	\$42.08	\$7.85	\$15.44	\$0.00	\$65.37

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) \*

\* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

01/01/2014	\$36.81	\$7.85	\$16.10	\$0.00	\$60.76
07/01/2014	\$37.66	\$7.85	\$16.10	\$0.00	\$61.61
01/01/2015	\$38.56	\$7.85	\$16.10	\$0.00	\$62.51
07/01/2015	\$39.46	\$7.85	\$16.10	\$0.00	\$63.41
01/01/2016	\$40.41	\$7.85	\$16.10	\$0.00	\$64.36
07/01/2016	\$41.36	\$7.85	\$16.10	\$0.00	\$65.31
01/01/2017	\$42.31	\$7.85	\$16.10	\$0.00	\$66.26

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 23 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - New

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.41	\$7.85	\$0.00	\$0.00	\$26.26
2	55	\$20.25	\$7.85	\$3.66	\$0.00	\$31.76
3	60	\$22.09	\$7.85	\$3.99	\$0.00	\$33.93
4	65	\$23.93	\$7.85	\$4.32	\$0.00	\$36.10
5	70	\$25.77	\$7.85	\$14.11	\$0.00	\$47.73
6	75	\$27.61	\$7.85	\$14.44	\$0.00	\$49.90
7	80	\$29.45	\$7.85	\$14.77	\$0.00	\$52.07
8	90	\$33.13	\$7.85	\$15.44	\$0.00	\$56.42

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.83	\$7.85	\$0.00	\$0.00	\$26.68
2	55	\$20.71	\$7.85	\$3.66	\$0.00	\$32.22
3	60	\$22.60	\$7.85	\$3.99	\$0.00	\$34.44
4	65	\$24.48	\$7.85	\$4.32	\$0.00	\$36.65
5	70	\$26.36	\$7.85	\$14.11	\$0.00	\$48.32
6	75	\$28.25	\$7.85	\$14.44	\$0.00	\$50.54
7	80	\$30.13	\$7.85	\$14.77	\$0.00	\$52.75
8	90	\$33.89	\$7.85	\$15.44	\$0.00	\$57.18

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2014	\$34.87	\$7.85	\$16.10	\$0.00	\$58.82
PAINTERS LOCAL 35 - ZONE 2	07/01/2014	\$35.72	\$7.85	\$16.10	\$0.00	\$59.67
	01/01/2015	\$36.62	\$7.85	\$16.10	\$0.00	\$60.57
	07/01/2015	\$37.52	\$7.85	\$16.10	\$0.00	\$61.47
	01/01/2016	\$38.47	\$7.85	\$16.10	\$0.00	\$62.42
	07/01/2016	\$39.42	\$7.85	\$16.10	\$0.00	\$63.37
	01/01/2017	\$40.37	\$7.85	\$16.10	\$0.00	\$64.32

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 24 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.44	\$7.85	\$0.00	\$0.00	\$25.29
2	55	\$19.18	\$7.85	\$3.66	\$0.00	\$30.69
3	60	\$20.92	\$7.85	\$3.99	\$0.00	\$32.76
4	65	\$22.67	\$7.85	\$4.32	\$0.00	\$34.84
5	70	\$24.41	\$7.85	\$14.11	\$0.00	\$46.37
6	75	\$26.15	\$7.85	\$14.44	\$0.00	\$48.44
7	80	\$27.90	\$7.85	\$14.77	\$0.00	\$50.52
8	90	\$31.38	\$7.85	\$15.44	\$0.00	\$54.67

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.86	\$7.85	\$0.00	\$0.00	\$25.71
2	55	\$19.65	\$7.85	\$3.66	\$0.00	\$31.16
3	60	\$21.43	\$7.85	\$3.99	\$0.00	\$33.27
4	65	\$23.22	\$7.85	\$4.32	\$0.00	\$35.39
5	70	\$25.00	\$7.85	\$14.11	\$0.00	\$46.96
6	75	\$26.79	\$7.85	\$14.44	\$0.00	\$49.08
7	80	\$28.58	\$7.85	\$14.77	\$0.00	\$51.20
8	90	\$32.15	\$7.85	\$15.44	\$0.00	\$55.44

## Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS)  
LABORERS - ZONE 1

12/01/2013	\$33.35	\$7.30	\$12.70	\$0.00	\$53.35
06/01/2014	\$34.10	\$7.30	\$12.70	\$0.00	\$54.10
12/01/2014	\$34.85	\$7.30	\$12.70	\$0.00	\$54.85
06/01/2015	\$35.60	\$7.30	\$12.70	\$0.00	\$55.60
12/01/2015	\$36.35	\$7.30	\$12.70	\$0.00	\$56.35
06/01/2016	\$37.10	\$7.30	\$12.70	\$0.00	\$57.10
12/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10

For Apprentice rates see "Apprentice- LABORER"

## PAINTER / TAPER (BRUSH, NEW) \*

\* If 30% or more of surfaces to be painted are new construction,  
NEW paint rate shall be used. PAINTERS LOCAL 35 - ZONE 2

01/01/2014	\$35.41	\$7.85	\$16.10	\$0.00	\$59.36
07/01/2014	\$36.26	\$7.85	\$16.10	\$0.00	\$60.21
01/01/2015	\$37.16	\$7.85	\$16.10	\$0.00	\$61.11
07/01/2015	\$38.06	\$7.85	\$16.10	\$0.00	\$62.01
01/01/2016	\$39.01	\$7.85	\$16.10	\$0.00	\$62.96
07/01/2016	\$39.96	\$7.85	\$16.10	\$0.00	\$63.91
01/01/2017	\$40.91	\$7.85	\$16.10	\$0.00	\$64.86

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 25 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - PAINTER - Local 35 Zone 2 - BRUSH NEW

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.71	\$7.85	\$0.00	\$0.00	\$25.56
2	55	\$19.48	\$7.85	\$3.66	\$0.00	\$30.99
3	60	\$21.25	\$7.85	\$3.99	\$0.00	\$33.09
4	65	\$23.02	\$7.85	\$4.32	\$0.00	\$35.19
5	70	\$24.79	\$7.85	\$14.11	\$0.00	\$46.75
6	75	\$26.56	\$7.85	\$14.44	\$0.00	\$48.85
7	80	\$28.33	\$7.85	\$14.77	\$0.00	\$50.95
8	90	\$31.87	\$7.85	\$15.44	\$0.00	\$55.16

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$18.13	\$7.85	\$0.00	\$0.00	\$25.98
2	55	\$19.94	\$7.85	\$3.66	\$0.00	\$31.45
3	60	\$21.76	\$7.85	\$3.99	\$0.00	\$33.60
4	65	\$23.57	\$7.85	\$4.32	\$0.00	\$35.74
5	70	\$25.38	\$7.85	\$14.11	\$0.00	\$47.34
6	75	\$27.20	\$7.85	\$14.44	\$0.00	\$49.49
7	80	\$29.01	\$7.85	\$14.77	\$0.00	\$51.63
8	90	\$32.63	\$7.85	\$15.44	\$0.00	\$55.92

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT)  
PAINTERS LOCAL 35 - ZONE 2

01/01/2014	\$33.47	\$7.85	\$16.10	\$0.00	\$57.42
07/01/2014	\$34.32	\$7.85	\$16.10	\$0.00	\$58.27
01/01/2015	\$35.22	\$7.85	\$16.10	\$0.00	\$59.17
07/01/2015	\$36.12	\$7.85	\$16.10	\$0.00	\$60.07
01/01/2016	\$37.07	\$7.85	\$16.10	\$0.00	\$61.02
07/01/2016	\$38.02	\$7.85	\$16.10	\$0.00	\$61.97
01/01/2017	\$38.97	\$7.85	\$16.10	\$0.00	\$62.92

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 26 of 40



## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - PAINTER Local 35 Zone 2 - BRUSH REPAINT

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$16.74	\$7.85	\$0.00	\$0.00	\$24.59
2	55	\$18.41	\$7.85	\$3.66	\$0.00	\$29.92
3	60	\$20.08	\$7.85	\$3.99	\$0.00	\$31.92
4	65	\$21.76	\$7.85	\$4.32	\$0.00	\$33.93
5	70	\$23.43	\$7.85	\$14.11	\$0.00	\$45.39
6	75	\$25.10	\$7.85	\$14.44	\$0.00	\$47.39
7	80	\$26.78	\$7.85	\$14.77	\$0.00	\$49.40
8	90	\$30.12	\$7.85	\$15.44	\$0.00	\$53.41

Effective Date - 07/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$17.16	\$7.85	\$0.00	\$0.00	\$25.01
2	55	\$18.88	\$7.85	\$3.66	\$0.00	\$30.39
3	60	\$20.59	\$7.85	\$3.99	\$0.00	\$32.43
4	65	\$22.31	\$7.85	\$4.32	\$0.00	\$34.48
5	70	\$24.02	\$7.85	\$14.11	\$0.00	\$45.98
6	75	\$25.74	\$7.85	\$14.44	\$0.00	\$48.03
7	80	\$27.46	\$7.85	\$14.77	\$0.00	\$50.08
8	90	\$30.89	\$7.85	\$15.44	\$0.00	\$54.18

## Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER	12/01/2013	\$31.88	\$9.41	\$8.80	\$0.00	\$50.09
TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	06/01/2014	\$32.23	\$9.41	\$8.80	\$0.00	\$50.44
	08/01/2014	\$32.23	\$9.91	\$8.80	\$0.00	\$50.94
	12/01/2014	\$32.23	\$9.91	\$9.33	\$0.00	\$51.47
	06/01/2015	\$32.58	\$9.91	\$9.33	\$0.00	\$51.82
	08/01/2015	\$32.58	\$10.41	\$9.33	\$0.00	\$52.32
	12/01/2015	\$32.58	\$10.41	\$10.08	\$0.00	\$53.07
	06/01/2016	\$33.08	\$10.41	\$10.08	\$0.00	\$53.57
	08/01/2016	\$33.08	\$10.91	\$10.08	\$0.00	\$54.07
	12/01/2016	\$33.08	\$10.91	\$10.89	\$0.00	\$54.88
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07
PILE DRIVER	08/01/2013	\$40.10	\$9.80	\$18.17	\$0.00	\$68.07
PILE DRIVER LOCAL 56 (ZONE 1)	08/01/2014	\$41.60	\$9.80	\$18.17	\$0.00	\$69.57
	08/01/2015	\$43.10	\$9.80	\$18.17	\$0.00	\$71.07

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 27 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - PILE DRIVER - Local 56 Zone 1

Effective Date - 08/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.05	\$9.80	\$18.17	\$0.00	\$48.02
2	60	\$24.06	\$9.80	\$18.17	\$0.00	\$52.03
3	70	\$28.07	\$9.80	\$18.17	\$0.00	\$56.04
4	75	\$30.08	\$9.80	\$18.17	\$0.00	\$58.05
5	80	\$32.08	\$9.80	\$18.17	\$0.00	\$60.05
6	80	\$32.08	\$9.80	\$18.17	\$0.00	\$60.05
7	90	\$36.09	\$9.80	\$18.17	\$0.00	\$64.06
8	90	\$36.09	\$9.80	\$18.17	\$0.00	\$64.06

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.80	\$9.80	\$18.17	\$0.00	\$48.77
2	60	\$24.96	\$9.80	\$18.17	\$0.00	\$52.93
3	70	\$29.12	\$9.80	\$18.17	\$0.00	\$57.09
4	75	\$31.20	\$9.80	\$18.17	\$0.00	\$59.17
5	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
6	80	\$33.28	\$9.80	\$18.17	\$0.00	\$61.25
7	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41
8	90	\$37.44	\$9.80	\$18.17	\$0.00	\$65.41

Notes:

Apprentice to Journeyworker Ratio:1:3

PIPEFITTER & STEAMFITTER PIPEFITTERS LOCAL 537	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
---	------------	---------	--------	---------	--------	---------

Apprentice - PIPEFITTER - Local 537

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$19.74	\$8.75	\$6.50	\$0.00	\$34.99
2	45	\$22.20	\$8.75	\$14.39	\$0.00	\$45.34
3	60	\$29.60	\$8.75	\$14.39	\$0.00	\$52.74
4	70	\$34.54	\$8.75	\$14.39	\$0.00	\$57.68
5	80	\$39.47	\$8.75	\$14.39	\$0.00	\$62.61

Notes:

\*\* 1:3; 3:15; 1:10 thereafter / Steps are 1 yr.

Refrig/AC Mechanic \*\*1:1;1:2;2:4;3:6;4:8;5:10;6:12;7:14;8:17;9:20;10:23(Max)

Apprentice to Journeyworker Ratio:\*\*

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 28 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PIPELAYER	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
LABORERS - ZONE 1	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

PLUMBERS & GASFITTERS	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
PLUMBERS & GASFITTERS LOCAL 12	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72

#### Apprentice - PLUMBER/GASFITTER - Local 12

Effective Date - 03/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.29	\$9.82	\$5.33	\$0.00	\$32.44
2	40	\$19.76	\$9.82	\$6.02	\$0.00	\$35.60
3	55	\$27.18	\$9.82	\$8.08	\$0.00	\$45.08
4	65	\$32.12	\$9.82	\$9.47	\$0.00	\$51.41
5	75	\$37.06	\$9.82	\$10.85	\$0.00	\$57.73

Effective Date - 09/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$17.64	\$9.82	\$5.33	\$0.00	\$32.79
2	40	\$20.16	\$9.82	\$6.02	\$0.00	\$36.00
3	55	\$27.73	\$9.82	\$8.08	\$0.00	\$45.63
4	65	\$32.77	\$9.82	\$9.47	\$0.00	\$52.06
5	75	\$37.81	\$9.82	\$10.85	\$0.00	\$58.48

#### Notes:

\*\* 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr  
Step4 with lic\$54.58 Step5 with lic\$60.90

Apprentice to Journeyworker Ratio:\*\*

PNEUMATIC CONTROLS (TEMP.)	03/01/2013	\$49.34	\$8.75	\$14.39	\$0.00	\$72.48
PIPEFITTERS LOCAL 537						

For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PNEUMATIC DRILL/TOOL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER <i>LABORERS - ZONE 1</i>	12/01/2013	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	06/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	12/01/2014	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	06/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	12/01/2015	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	06/01/2016	\$38.10	\$7.30	\$12.70	\$0.00	\$58.10
	12/01/2016	\$39.10	\$7.30	\$12.70	\$0.00	\$59.10
For apprentice rates see "Apprentice- LABORER"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$28.11	\$10.00	\$14.18	\$0.00	\$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER <i>TEAMSTERS LOCAL 256</i>	05/01/2011	\$28.03	\$7.75	\$5.91	\$0.00	\$41.69
RECLAIMERS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) <i>CARPENTERS -ZONE 2 (Residential Wood)</i>	04/01/2011	\$24.24	\$8.67	\$15.51	\$0.00	\$48.42
RESIDENTIAL WOOD FRAME CARPENTER ** ** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories including the basement. <i>CARPENTERS -ZONE 2 (Residential Wood)</i> As of 9/1/09 Carpentry work on wood-frame residential WEATHERIZATION projects shall be paid the RESIDENTIAL WOOD FRAME CARPENTER rate.	05/01/2011	\$24.24	\$6.34	\$6.23	\$0.00	\$36.81

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	---------------------------	------------

**Apprentice - CARPENTER (Residential Wood Frame) - Zone 2**

Effective Date - 05/01/2011

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$14.54	\$6.34	\$0.00	\$0.00	\$20.88
2	60	\$14.54	\$6.34	\$6.23	\$0.00	\$27.11
3	65	\$15.76	\$6.34	\$6.23	\$0.00	\$28.33
4	70	\$16.97	\$6.34	\$6.23	\$0.00	\$29.54
5	75	\$18.18	\$6.34	\$6.23	\$0.00	\$30.75
6	80	\$19.39	\$6.34	\$6.23	\$0.00	\$31.96
7	85	\$20.60	\$6.34	\$6.23	\$0.00	\$33.17
8	90	\$21.82	\$6.34	\$6.23	\$0.00	\$34.39

Notes:

Apprentice to Journeyworker Ratio:1:5

RIDE-ON MOTORIZED BUGGY OPERATOR	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
LABORERS - ZONE 1	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35

	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35

For apprentice rates see "Apprentice- LABORER"

ROLLER/SPREADER/MULCHING MACHINE	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
OPERATING ENGINEERS LOCAL 4						

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

ROOFER (Inc.Roofer Waterproofing &Roofer Dampproofg)	02/01/2014	\$39.21	\$10.50	\$10.70	\$0.00	\$60.41
ROOFERS LOCAL 33	08/01/2014	\$40.11	\$10.50	\$10.70	\$0.00	\$61.31
	02/01/2015	\$41.01	\$10.50	\$10.70	\$0.00	\$62.21
	08/01/2015	\$41.91	\$10.50	\$10.70	\$0.00	\$63.11
	02/01/2016	\$42.81	\$10.50	\$10.70	\$0.00	\$64.01

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 31 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - ROOFER - Local 33

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$19.61	\$10.50	\$3.38	\$0.00	\$33.49
2	60	\$23.53	\$10.50	\$10.70	\$0.00	\$44.73
3	65	\$25.49	\$10.50	\$10.70	\$0.00	\$46.69
4	75	\$29.41	\$10.50	\$10.70	\$0.00	\$50.61
5	85	\$33.33	\$10.50	\$10.70	\$0.00	\$54.53

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$20.06	\$10.50	\$3.38	\$0.00	\$33.94
2	60	\$24.07	\$10.50	\$10.70	\$0.00	\$45.27
3	65	\$26.07	\$10.50	\$10.70	\$0.00	\$47.27
4	75	\$30.08	\$10.50	\$10.70	\$0.00	\$51.28
5	85	\$34.09	\$10.50	\$10.70	\$0.00	\$55.29

Notes: \*\* 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1  
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.

Apprentice to Journeyworker Ratio:\*\*

ROOFER SLATE / TILE / PRECAST CONCRETE  
ROOFERS LOCAL 33

02/01/2014	\$39.46	\$10.50	\$10.70	\$0.00	\$60.66
08/01/2014	\$40.36	\$10.50	\$10.70	\$0.00	\$61.56
02/01/2015	\$41.26	\$10.50	\$10.70	\$0.00	\$62.46
08/01/2015	\$42.16	\$10.50	\$10.70	\$0.00	\$63.36
02/01/2016	\$43.06	\$10.50	\$10.70	\$0.00	\$64.26

For apprentice rates see "Apprentice- ROOFER"

SHEETMETAL WORKER  
SHEETMETAL WORKERS LOCAL 17 - A

02/01/2014	\$42.76	\$9.82	\$19.74	\$2.17	\$74.49
08/01/2014	\$43.61	\$9.82	\$19.74	\$2.17	\$75.34
02/01/2015	\$44.51	\$9.82	\$19.74	\$2.17	\$76.24
08/01/2015	\$45.51	\$9.82	\$19.74	\$2.17	\$77.24
02/01/2016	\$46.51	\$9.82	\$19.74	\$2.17	\$78.24
08/01/2016	\$47.66	\$9.82	\$19.74	\$2.17	\$79.39
02/01/2017	\$48.76	\$9.82	\$19.74	\$2.17	\$80.49
08/01/2017	\$49.86	\$9.82	\$19.74	\$2.17	\$81.59
02/01/2018	\$51.01	\$9.82	\$19.74	\$2.17	\$82.74

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 32 of 40

Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

Apprentice - SHEET METAL WORKER - Local 17-A

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.10	\$9.82	\$4.28	\$0.00	\$31.20
2	40	\$17.10	\$9.82	\$4.28	\$0.00	\$31.20
3	45	\$19.24	\$9.82	\$8.70	\$1.13	\$38.89
4	45	\$19.24	\$9.82	\$8.70	\$1.13	\$38.89
5	50	\$21.38	\$9.82	\$9.49	\$1.22	\$41.91
6	50	\$21.38	\$9.82	\$9.74	\$1.23	\$42.17
7	60	\$25.66	\$9.82	\$11.05	\$1.40	\$47.93
8	65	\$27.79	\$9.82	\$11.84	\$1.48	\$50.93
9	75	\$32.07	\$9.82	\$13.41	\$1.66	\$56.96
10	85	\$36.35	\$9.82	\$14.48	\$1.82	\$62.47

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$17.44	\$9.82	\$4.28	\$0.00	\$31.54
2	40	\$17.44	\$9.82	\$4.28	\$0.00	\$31.54
3	45	\$19.62	\$9.82	\$8.70	\$1.13	\$39.27
4	45	\$19.62	\$9.82	\$8.70	\$1.13	\$39.27
5	50	\$21.81	\$9.82	\$9.49	\$1.22	\$42.34
6	50	\$21.81	\$9.82	\$9.74	\$1.23	\$42.60
7	60	\$26.17	\$9.82	\$11.05	\$1.40	\$48.44
8	65	\$28.35	\$9.82	\$11.84	\$1.48	\$51.49
9	75	\$32.71	\$9.82	\$13.41	\$1.66	\$57.60
10	85	\$37.07	\$9.82	\$14.48	\$1.82	\$63.19

Notes:

Steps are 6 mos.

Apprentice to Journeyworker Ratio:1:4

SIGN ERECTOR	06/01/2013	\$25.81	\$7.07	\$7.05	\$0.00	\$39.93
PAINTERS LOCAL 35 - ZONE 2						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 33 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
----------------	----------------	-----------	--------	---------	------------------------------	------------

Apprentice - SIGN ERECTOR - Local 35 Zone 2

Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$12.91	\$7.07	\$0.00	\$0.00	\$19.98
2	55	\$14.20	\$7.07	\$2.45	\$0.00	\$23.72
3	60	\$15.49	\$7.07	\$2.45	\$0.00	\$25.01
4	65	\$16.78	\$7.07	\$2.45	\$0.00	\$26.30
5	70	\$18.07	\$7.07	\$7.05	\$0.00	\$32.19
6	75	\$19.36	\$7.07	\$7.05	\$0.00	\$33.48
7	80	\$20.65	\$7.07	\$7.05	\$0.00	\$34.77
8	85	\$21.94	\$7.07	\$7.05	\$0.00	\$36.06
9	90	\$23.23	\$7.07	\$7.05	\$0.00	\$37.35

Notes:

Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2013	\$32.34	\$9.41	\$8.80	\$0.00	\$50.55
	06/01/2014	\$32.69	\$9.41	\$8.80	\$0.00	\$50.90
	08/01/2014	\$32.69	\$9.91	\$8.80	\$0.00	\$51.40
	12/01/2014	\$32.69	\$9.91	\$9.33	\$0.00	\$51.93
	06/01/2015	\$33.04	\$9.91	\$9.33	\$0.00	\$52.28
	08/01/2015	\$33.04	\$10.41	\$9.33	\$0.00	\$52.78
	12/01/2015	\$33.04	\$10.41	\$10.08	\$0.00	\$53.53
	06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
	08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
SPECIALIZED EARTH MOVING EQUIP > 35 TONS TEAMSTERS JOINT COUNCIL NO. 10 ZONE A	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34
	12/01/2013	\$32.63	\$9.41	\$8.80	\$0.00	\$50.84
	06/01/2014	\$32.98	\$9.41	\$8.80	\$0.00	\$51.19
	08/01/2014	\$32.98	\$9.91	\$8.80	\$0.00	\$51.69
	12/01/2014	\$32.98	\$9.91	\$9.33	\$0.00	\$52.22
	06/01/2015	\$33.33	\$9.91	\$9.33	\$0.00	\$52.57
	08/01/2015	\$33.33	\$10.41	\$9.33	\$0.00	\$53.07
	12/01/2015	\$33.33	\$10.41	\$10.08	\$0.00	\$53.82
	06/01/2016	\$33.83	\$10.41	\$10.08	\$0.00	\$54.32
	08/01/2016	\$33.83	\$10.91	\$10.08	\$0.00	\$54.82
	12/01/2016	\$33.83	\$10.91	\$10.89	\$0.00	\$55.63

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 34 of 40



Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
SPRINKLER FITTER	03/01/2014	\$53.58	\$8.42	\$13.60	\$0.00	\$75.60
SPRINKLER FITTERS LOCAL 550 - (Section A) Zone 1	10/01/2014	\$54.73	\$8.42	\$13.60	\$0.00	\$76.75
	01/01/2015	\$54.73	\$8.42	\$13.75	\$0.00	\$76.90
	03/01/2015	\$55.73	\$8.42	\$13.75	\$0.00	\$77.90
	10/01/2015	\$56.88	\$8.42	\$13.75	\$0.00	\$79.05
	01/01/2016	\$56.88	\$8.67	\$13.90	\$0.00	\$79.45
	03/01/2016	\$57.88	\$8.67	\$13.90	\$0.00	\$80.45
	10/01/2016	\$59.03	\$8.67	\$13.90	\$0.00	\$81.60
	03/01/2017	\$60.03	\$8.67	\$13.90	\$0.00	\$82.60

**Apprentice - SPRINKLER FITTER - Local 550 (Section A) Zone 1**

**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$18.75	\$8.42	\$8.25	\$0.00	\$35.42
2	40	\$21.43	\$8.42	\$8.25	\$0.00	\$38.10
3	45	\$24.11	\$8.42	\$8.25	\$0.00	\$40.78
4	50	\$26.79	\$8.42	\$8.25	\$0.00	\$43.46
5	55	\$29.47	\$8.42	\$8.25	\$0.00	\$46.14
6	60	\$32.15	\$8.42	\$8.25	\$0.00	\$48.82
7	65	\$34.83	\$8.42	\$8.25	\$0.00	\$51.50
8	70	\$37.51	\$8.42	\$8.25	\$0.00	\$54.18
9	75	\$40.19	\$8.42	\$8.25	\$0.00	\$56.86
10	80	\$42.86	\$8.42	\$8.25	\$0.00	\$59.53

**Effective Date - 10/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	\$19.16	\$8.42	\$8.25	\$0.00	\$35.83
2	40	\$21.89	\$8.42	\$8.25	\$0.00	\$38.56
3	45	\$24.63	\$8.42	\$8.25	\$0.00	\$41.30
4	50	\$27.37	\$8.42	\$8.25	\$0.00	\$44.04
5	55	\$30.10	\$8.42	\$8.25	\$0.00	\$46.77
6	60	\$32.84	\$8.42	\$8.25	\$0.00	\$49.51
7	65	\$35.57	\$8.42	\$8.25	\$0.00	\$52.24
8	70	\$38.31	\$8.42	\$8.25	\$0.00	\$54.98
9	75	\$41.05	\$8.42	\$8.25	\$0.00	\$57.72
10	80	\$43.78	\$8.42	\$8.25	\$0.00	\$60.45

Notes: Apprentice entered prior 9/30/10:  
40/45/50/55/60/65/70/75/80/85  
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:3

STEAM BOILER OPERATOR	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
OPERATING ENGINEERS LOCAL 4						
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
OPERATING ENGINEERS LOCAL 4						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 35 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN	03/01/2014	\$33.44	\$13.00	\$13.03	\$0.00	\$59.47
ELECTRICIANS LOCAL 103	09/01/2014	\$33.84	\$13.00	\$13.05	\$0.00	\$59.89
	03/01/2015	\$34.38	\$13.00	\$13.06	\$0.00	\$60.44
	09/01/2015	\$35.10	\$13.00	\$13.08	\$0.00	\$61.18
	03/01/2016	\$35.81	\$13.00	\$13.10	\$0.00	\$61.91

**Apprentice - TELECOMMUNICATION TECHNICIAN - Local 103**

**Effective Date - 03/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.38	\$13.00	\$0.40	\$0.00	\$26.78
2	40	\$13.38	\$13.00	\$0.40	\$0.00	\$26.78
3	45	\$15.05	\$13.00	\$10.29	\$0.00	\$38.34
4	45	\$15.05	\$13.00	\$10.29	\$0.00	\$38.34
5	50	\$16.72	\$13.00	\$10.54	\$0.00	\$40.26
6	55	\$18.39	\$13.00	\$10.79	\$0.00	\$42.18
7	60	\$20.06	\$13.00	\$11.04	\$0.00	\$44.10
8	65	\$21.74	\$13.00	\$11.29	\$0.00	\$46.03
9	70	\$23.41	\$13.00	\$11.54	\$0.00	\$47.95
10	75	\$25.08	\$13.00	\$11.79	\$0.00	\$49.87

**Effective Date - 09/01/2014**

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	\$13.54	\$13.00	\$0.41	\$0.00	\$26.95
2	40	\$13.54	\$13.00	\$0.41	\$0.00	\$26.95
3	45	\$15.23	\$13.00	\$10.30	\$0.00	\$38.53
4	45	\$15.23	\$13.00	\$10.30	\$0.00	\$38.53
5	50	\$16.92	\$13.00	\$10.55	\$0.00	\$40.47
6	55	\$18.61	\$13.00	\$10.80	\$0.00	\$42.41
7	60	\$20.30	\$13.00	\$11.05	\$0.00	\$44.35
8	65	\$22.00	\$13.00	\$11.30	\$0.00	\$46.30
9	70	\$23.69	\$13.00	\$11.55	\$0.00	\$48.24
10	75	\$25.38	\$13.00	\$11.80	\$0.00	\$50.18

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS	02/01/2014	\$47.00	\$10.18	\$18.15	\$0.00	\$75.33
BRICKLAYERS LOCAL 3 - MARBLE & TILE	08/01/2014	\$47.90	\$10.18	\$18.22	\$0.00	\$76.30
	02/01/2015	\$48.46	\$10.18	\$18.22	\$0.00	\$76.86
	08/01/2015	\$49.36	\$10.18	\$18.29	\$0.00	\$77.83
	02/01/2016	\$49.93	\$10.18	\$18.29	\$0.00	\$78.40
	08/01/2016	\$50.83	\$10.18	\$18.37	\$0.00	\$79.38
	02/01/2017	\$51.40	\$10.18	\$18.37	\$0.00	\$79.95

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 36 of 40

## Classification

Effective Date    Base Wage    Health    Pension    Supplemental  
Unemployment    Total Rate

## Apprentice - TERRAZZO FINISHER - Local 3 Marble &amp; Tile

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.50	\$10.18	\$18.15	\$0.00	\$51.83
2	60	\$28.20	\$10.18	\$18.15	\$0.00	\$56.53
3	70	\$32.90	\$10.18	\$18.15	\$0.00	\$61.23
4	80	\$37.60	\$10.18	\$18.15	\$0.00	\$65.93
5	90	\$42.30	\$10.18	\$18.15	\$0.00	\$70.63

Effective Date - 08/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	\$23.95	\$10.18	\$18.22	\$0.00	\$52.35
2	60	\$28.74	\$10.18	\$18.22	\$0.00	\$57.14
3	70	\$33.53	\$10.18	\$18.22	\$0.00	\$61.93
4	80	\$38.32	\$10.18	\$18.22	\$0.00	\$66.72
5	90	\$43.11	\$10.18	\$18.22	\$0.00	\$71.51

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER	12/01/2013	\$34.70	\$7.30	\$12.90	\$0.00	\$54.90
LABORERS - FOUNDATION AND MARINE	06/01/2014	\$35.45	\$7.30	\$12.90	\$0.00	\$55.65
	12/01/2014	\$36.20	\$7.30	\$12.90	\$0.00	\$56.40
	06/01/2015	\$36.95	\$7.30	\$12.90	\$0.00	\$57.15
	12/01/2015	\$37.70	\$7.30	\$12.90	\$0.00	\$57.90
	06/01/2016	\$38.45	\$7.30	\$12.90	\$0.00	\$58.65
	12/01/2016	\$39.45	\$7.30	\$12.90	\$0.00	\$59.65
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER	12/01/2013	\$33.42	\$7.30	\$12.90	\$0.00	\$53.62
LABORERS - FOUNDATION AND MARINE	06/01/2014	\$34.17	\$7.30	\$12.90	\$0.00	\$54.37
	12/01/2014	\$34.92	\$7.30	\$12.90	\$0.00	\$55.12
	06/01/2015	\$35.67	\$7.30	\$12.90	\$0.00	\$55.87
	12/01/2015	\$36.42	\$7.30	\$12.90	\$0.00	\$56.62
	06/01/2016	\$37.17	\$7.30	\$12.90	\$0.00	\$57.37
	12/01/2016	\$38.17	\$7.30	\$12.90	\$0.00	\$58.37
For apprentice rates see "Apprentice- LABORER"						
TEST BORING LABORER	12/01/2013	\$33.30	\$7.30	\$12.90	\$0.00	\$53.50
LABORERS - FOUNDATION AND MARINE	06/01/2014	\$34.05	\$7.30	\$12.90	\$0.00	\$54.25
	12/01/2014	\$34.80	\$7.30	\$12.90	\$0.00	\$55.00
	06/01/2015	\$35.55	\$7.30	\$12.90	\$0.00	\$55.75
	12/01/2015	\$36.30	\$7.30	\$12.90	\$0.00	\$56.50
	06/01/2016	\$37.05	\$7.30	\$12.90	\$0.00	\$57.25
	12/01/2016	\$38.05	\$7.30	\$12.90	\$0.00	\$58.25
For apprentice rates see "Apprentice- LABORER"						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 37 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TRACTORS/PORTABLE STEAM GENERATORS <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.11	\$10.00	\$14.18	\$0.00	\$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2013	\$32.92	\$9.41	\$8.80	\$0.00	\$51.13
	06/01/2014	\$33.27	\$9.41	\$8.80	\$0.00	\$51.48
	08/01/2014	\$33.27	\$9.91	\$8.80	\$0.00	\$51.98
	12/01/2014	\$33.27	\$9.91	\$9.33	\$0.00	\$52.51
	06/01/2015	\$33.62	\$9.91	\$9.33	\$0.00	\$52.86
	08/01/2015	\$33.62	\$10.41	\$9.33	\$0.00	\$53.36
	12/01/2015	\$33.62	\$10.41	\$10.08	\$0.00	\$54.11
	06/01/2016	\$34.12	\$10.41	\$10.08	\$0.00	\$54.61
	08/01/2016	\$34.12	\$10.91	\$10.08	\$0.00	\$55.11
	12/01/2016	\$34.12	\$10.91	\$10.89	\$0.00	\$55.92
TUNNEL WORK - COMPRESSED AIR <i>LABORERS (COMPRESSED AIR)</i>	12/01/2013	\$45.58	\$7.30	\$13.30	\$0.00	\$66.18
	06/01/2014	\$46.33	\$7.30	\$13.30	\$0.00	\$66.93
	12/01/2014	\$47.08	\$7.30	\$13.30	\$0.00	\$67.68
	06/01/2015	\$47.83	\$7.30	\$13.30	\$0.00	\$68.43
	12/01/2015	\$48.58	\$7.30	\$13.30	\$0.00	\$69.18
	06/01/2016	\$49.33	\$7.30	\$13.30	\$0.00	\$69.93
	12/01/2016	\$50.33	\$7.30	\$13.30	\$0.00	\$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) <i>LABORERS (COMPRESSED AIR)</i>	12/01/2013	\$47.58	\$7.30	\$13.30	\$0.00	\$68.18
	06/01/2014	\$48.33	\$7.30	\$13.30	\$0.00	\$68.93
	12/01/2014	\$49.08	\$7.30	\$13.30	\$0.00	\$69.68
	06/01/2015	\$49.83	\$7.30	\$13.30	\$0.00	\$70.43
	12/01/2015	\$50.58	\$7.30	\$13.30	\$0.00	\$71.18
	06/01/2016	\$51.33	\$7.30	\$13.30	\$0.00	\$71.93
	12/01/2016	\$52.33	\$7.30	\$13.30	\$0.00	\$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2013	\$37.65	\$7.30	\$13.30	\$0.00	\$58.25
	06/01/2014	\$38.40	\$7.30	\$13.30	\$0.00	\$59.00
	12/01/2014	\$39.15	\$7.30	\$13.30	\$0.00	\$59.75
	06/01/2015	\$39.90	\$7.30	\$13.30	\$0.00	\$60.50
	12/01/2015	\$40.65	\$7.30	\$13.30	\$0.00	\$61.25
	06/01/2016	\$41.40	\$7.30	\$13.30	\$0.00	\$62.00
	12/01/2016	\$42.40	\$7.30	\$13.30	\$0.00	\$63.00
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR (HAZ. WASTE) <i>LABORERS (FREE AIR TUNNEL)</i>	12/01/2013	\$39.65	\$7.30	\$13.30	\$0.00	\$60.25
	06/01/2014	\$40.40	\$7.30	\$13.30	\$0.00	\$61.00
	12/01/2014	\$41.15	\$7.30	\$13.30	\$0.00	\$61.75
	06/01/2015	\$41.90	\$7.30	\$13.30	\$0.00	\$62.50
	12/01/2015	\$42.65	\$7.30	\$13.30	\$0.00	\$63.25
	06/01/2016	\$43.40	\$7.30	\$13.30	\$0.00	\$64.00
	12/01/2016	\$44.40	\$7.30	\$13.30	\$0.00	\$65.00
For apprentice rates see "Apprentice- LABORER"						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 38 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
VAC-HAUL <i>TEAMSTERS JOINT COUNCIL NO. 10 ZONE A</i>	12/01/2013	\$32.34	\$9.41	\$8.80	\$0.00	\$50.55
	06/01/2014	\$32.69	\$9.41	\$8.80	\$0.00	\$50.90
	08/01/2014	\$32.69	\$9.91	\$8.80	\$0.00	\$51.40
	12/01/2014	\$32.69	\$9.91	\$9.33	\$0.00	\$51.93
	06/01/2015	\$33.04	\$9.91	\$9.33	\$0.00	\$52.28
	08/01/2015	\$33.04	\$10.41	\$9.33	\$0.00	\$52.78
	12/01/2015	\$33.04	\$10.41	\$10.08	\$0.00	\$53.53
	06/01/2016	\$33.54	\$10.41	\$10.08	\$0.00	\$54.03
	08/01/2016	\$33.54	\$10.91	\$10.08	\$0.00	\$54.53
	12/01/2016	\$33.54	\$10.91	\$10.89	\$0.00	\$55.34
WAGON DRILL OPERATOR <i>LABORERS - ZONE 1</i>	12/01/2013	\$33.60	\$7.30	\$12.70	\$0.00	\$53.60
	06/01/2014	\$34.35	\$7.30	\$12.70	\$0.00	\$54.35
	12/01/2014	\$35.10	\$7.30	\$12.70	\$0.00	\$55.10
	06/01/2015	\$35.85	\$7.30	\$12.70	\$0.00	\$55.85
	12/01/2015	\$36.60	\$7.30	\$12.70	\$0.00	\$56.60
	06/01/2016	\$37.35	\$7.30	\$12.70	\$0.00	\$57.35
	12/01/2016	\$38.35	\$7.30	\$12.70	\$0.00	\$58.35
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR <i>OPERATING ENGINEERS LOCAL 4</i>	12/01/2013	\$40.49	\$10.00	\$14.18	\$0.00	\$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER <i>PLUMBERS &amp; GASFITTERS LOCAL 12</i>	03/01/2014	\$49.41	\$9.82	\$14.29	\$0.00	\$73.52
	09/01/2014	\$50.41	\$9.82	\$14.29	\$0.00	\$74.52
	03/01/2015	\$51.41	\$9.82	\$14.29	\$0.00	\$75.52
	09/01/2015	\$52.41	\$9.82	\$14.29	\$0.00	\$76.52
	03/01/2016	\$53.56	\$9.82	\$14.29	\$0.00	\$77.67
	09/01/2016	\$54.61	\$9.82	\$14.29	\$0.00	\$78.72
	03/01/2017	\$55.61	\$9.82	\$14.29	\$0.00	\$79.72
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
<b>Outside Electrical - East</b>						
CABLE TECHNICIAN (Power Zone) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$25.66	\$8.70	\$4.48	\$0.00	\$38.84
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.55	\$8.70	\$6.58	\$0.00	\$51.83
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$29.94	\$8.70	\$6.05	\$0.00	\$44.69
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$5.24	\$0.00	\$37.46
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$36.35	\$8.70	\$9.43	\$0.00	\$54.48
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$32.08	\$8.70	\$6.59	\$0.00	\$47.37
For apprentice rates see "Apprentice- LINEMAN"						

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 39 of 40

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$23.52	\$8.70	\$3.72	\$0.00	\$35.94
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN -Inexperienced (<2000 Hrs.) <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$19.25	\$8.70	\$2.85	\$0.00	\$30.80
For apprentice rates see "Apprentice- LINEMAN"						
JOURNEYMAN LINEMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	09/01/2013	\$42.77	\$8.70	\$11.78	\$0.00	\$63.25

**Apprentice - LINEMAN (Outside Electrical) - East Local 104**

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	\$25.66	\$8.70	\$4.24	\$0.00	\$38.60
2	65	\$27.80	\$8.70	\$4.71	\$0.00	\$41.21
3	70	\$29.94	\$8.70	\$5.43	\$0.00	\$44.07
4	75	\$32.08	\$8.70	\$6.16	\$0.00	\$46.94
5	80	\$34.22	\$8.70	\$6.88	\$0.00	\$49.80
6	85	\$36.35	\$8.70	\$7.62	\$0.00	\$52.67
7	90	\$38.49	\$8.70	\$8.83	\$0.00	\$56.02

Notes:

Apprentice to Journeyworker Ratio:1:2

TELEDATA CABLE SPLICER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$26.33	\$4.18	\$2.79	\$0.00	\$33.30
TELEDATA LINEMAN/EQUIPMENT OPERATOR <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TELEDATA WIREMAN/INSTALLER/TECHNICIAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	07/16/2012	\$24.78	\$4.18	\$2.74	\$0.00	\$31.70
TREE TRIMMER <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$17.18	\$3.37	\$0.00	\$0.00	\$20.55
This classification applies only to the trimming of branches on and around utility lines.						
TREE TRIMMER GROUNDMAN <i>OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104</i>	01/29/2012	\$15.15	\$3.37	\$0.00	\$0.00	\$18.52
This classification applies only to the trimming of branches on and around utility lines.						

**Additional Apprentice Information:**

Minimum wage rates for apprentices employed on public works projects are listed above as a percentage of the pre-determined hourly wage rate established by the Commissioner under the provisions of the M.G.L. c. 149, ss. 26-27D. Apprentice ratios are established by the Division of Apprenticeship Training pursuant to M.G.L. c. 23, ss. 11E-11L.

All apprentices must be registered with the Division of Apprenticeship Training in accordance with M.G.L. c. 23, ss. 11E-11L.

All steps are six months (1000 hours) unless otherwise specified.

\* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.

\*\* Multiple ratios are listed in the comment field.

\*\*\* APP to JM; 1:1, 2:2, 2:3, 3:4, 4:4, 4:5, 4:6, 5:7, 6:7, 6:8, 6:9, 7:10, 8:10, 8:11, 8:12, 9:13, 10:13, 10:14, etc.

\*\*\*\* APP to JM; 1:1, 1:2, 2:3, 2:4, 3:5, 4:6, 4:7, 5:8, 6:9, 6:10, 7:11, 8:12, 8:13, 9:14, 10:15, 10:16, etc.

Issue Date: 03/12/2014

Wage Request Number: 20140312-011

Page 40 of 40

## **The Massachusetts Prevailing Wage Law**

### **M.G.L. c.149, §§26 – 27**

#### **NOTICE TO AWARDING AUTHORITIES**

- 'The enclosed wage schedule applies only to the specific project listed at the top and will be updated for any public construction project lasting longer than one (1) year.
- 'You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.
- 'The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.
- 'Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

#### **NOTICE TO CONTRACTORS**

- The enclosed wage schedule, and any updated schedule, must be posted in a conspicuous place at the work site during the life of the project.
- The wages listed on the enclosed wage schedule must be paid to employees on public works projects regardless of whether they are employed by the prime contractor, a filed sub-bidder, or any sub-contractor.
- The enclosed wage schedule applies to all phases of the project including the final clean-up. Contractors whose only role is to perform final clean-up must pay their employees according to this wage schedule.
- All apprentices must be registered with the Massachusetts Division of Apprentice Training in order to be paid at the reduced apprentice rates. If a worker is not registered with the Division of Apprentice Training, they must be paid the “total rate” listed on the wage schedule regardless of experience or skill level. For further information, please call (617) 727-3486 or write to the Division of Apprentice Training, 399 Washington Street, 4th Floor, Boston, MA 02108

## WEEKLY PAYROLL RECORDS REPORT

### & STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c.149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

### STATEMENT OF COMPLIANCE

\_\_\_\_\_, 2014

I, \_\_\_\_\_,

(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

\_\_\_\_\_ on the \_\_\_\_\_

(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions M.G.L. c.149, §§26-27.

Signature \_\_\_\_\_

Title \_\_\_\_\_

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREET, 5<sup>th</sup> FL., BOSTON, MA. 02108

END OF SECTION





## **SECTION 01 10 00**

### **SCOPE OF THE WORK**

#### **PART 1 - GENERAL**

##### **1.01 GENERAL CONDITIONS**

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### **1.02 LOCATION OF WORK**

- A. The work of this Contract shall be performed at the Bigelow Middle School, 42 Vernon Street, Newton, Massachusetts 02458.

##### **1.03 GENERAL SCOPE OF WORK**

- A. The work to be done consists:
  - 1. Replacement of concrete walkways, stairs, come retaining walls and repair of existing walls to remain.
  - 2. Replacement of stair and ramp guard and handrails.
  - 3. Cleaning of area storm drains and catch basins and resetting of rims.
  - 4. Application of thin brick to existing ramp walls.

**BIGELOW MIDDLE SCHOOL  
ENTRANCE REPAIR AND REPLACEMENT  
42 VERNON STREET  
NEWTON, MA 02458**

- B. The General Contractor shall furnish and do everything, except as otherwise provided by specific notations herein or on the drawings, necessary to complete the work in accordance with the Plans and Project Manual. He shall furnish all plant, labor, materials, supplies, tools, water, machinery, implements, light, power, transportation, and other facilities required, and do all work necessary for the complete execution and completion of the Contract, except that work or materials specifically stated to be done or furnished by others.
- C. All work and materials furnished and installed shall be of the best quality and workmanship, and to the satisfaction of the Architect. There shall be no defect in the work or the operation thereof due to inferior materials or the workman like placing of any part. The work under this contract shall be performed at such times as may be necessary to facilitate the orderly progress of the work. It is the intention of these Specifications and Plans to cover all work necessary and incidental to the completion of this project, including all trades, as shown on the drawings or specified.
- D. Contractor shall provide all finish work as necessary to provide the finished results shown on the Contract Drawings and as herein specified.

1.04 LIST OF DRAWINGS dated 3/20/14

Plan No.            Description

GENERAL

T1.0                      TITLE SHEET

CIVIL

TOPO-WS                TOPOGRAPHY SITE SURVEY

ARCHITECTURAL

A1.1                      DEMOLITION AND NEW WORK PLANS  
A1.2                      NEW WORK ENLARGED PLANS AND SECTIONS  
A1.3                      NEW WORK ENLARGED PLANS & SECTIONS  
A1.4                      NEW WORK WALL SECTIONS AND CONCRETE DETAILS  
A1.5                      MISCELLANEOUS DETAILS

END OF SECTION

## **SECTION 01 23 00**

### **ALTERNATES**

#### **PART 1 - GENERAL**

##### **1.01 GENERAL CONDITIONS**

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site.

##### **1.02 ALTERNATES**

- A. General bidders must submit a bid on all the alternate proposals requested.
- B. All filed sub-bidders must submit a bid on any alternate proposal that affects the work under their Section of the contract documents. Review the plans and specifications carefully to determine the scope of work under each of the alternates.
- C. If no change in price is to be indicated, the word “No Change” shall be used; do not use the term “No Bid”.
- D. Description of the alternate proposals requested is as follows:

#### **PROPOSED ALTERNATES**

Alternate No. 1: provide concrete sealer at all new concrete flatwork and stairs

Alternate No. 2: Replace concrete landing, stairs and handrails by theater exit doors as indicated on the drawings.

##### **1.03 BID FORM**

- A. All bidders shall insert in spaces provided on the bid form the amount to be added or subtracted from their bids for Alternates No. 1 & 2.

**END OF SECTION**

## SECTION 01 31 00

### CONSTRUCTION SCHEDULING AND PHASING

#### PART 1 - GENERAL

##### 1.01.1 GENERAL CONDITIONS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### 1.02 DESCRIPTION OF WORK

- A. This Section specifies the construction phasing and scheduling of the work.
- B. This Section also specifies the requirements and limitations that will be imposed during the execution of the work. Before any construction commences, the contractor must submit a CPM schedule that identifies weekly activities for the duration of the project for approval by the Architect and Owner within 20 days of the Notice to Proceed and/or contract.

##### 1.03 SUBMITTALS

- A. The Contractor shall submit to the Architect for approval, a Construction Schedule in accordance with the requirements and limitations hereinafter specified.

#### PART 2 - PRODUCTS

(Not Used)

#### PART 3 - EXECUTION

##### 3.01 COORDINATION

- a. Upon receipt of bids and execution of the contract the contractor shall submit within 20 days all materials and shop drawings for review and approval. The work of removal, modifications and/or replacement of materials and equipment shall not proceed until all new items are on site.
- b. During the initial stage of the project, a mandatory coordination meeting will required.
- c. During the course of the work the Contractor shall, through a series of mandatory weekly meetings, continually appraise the Architect and the Facility Representative on the progress of the work and the scheduling of work yet to be done.
- d. The Contractor shall coordinate his work with the Facility Representatives in order that disruption to traffic flows and schedules are held to a minimum.

##### 3.02 LIMITATIONS

- A. Contractor's employee parking will be limited to areas designated on the site.



- B. Contractor's storage area shall be confined to the areas designated on the site.
- C. The Contractor shall coordinate his work with the Facility Representatives to prevent pedestrian or vehicle traffic problems on the properties.
- D. Temporary entrances and fencing required to provide safe legal site shall be constructed as necessary and shall be completed and inspected and approved by the Public Works Project Manager.
- E. Shop fabrication will be no more than 30 days after approval of shop drawings.
- F. The work scheduled under this contract shall be substantially complete on the date listed in the Invitation for Bid.

### 3.03 SCHEDULE OF WORK

- A. Contractor shall meet with the architect and building administration to establish space availability for the work under this contract. The contractor shall then submit to the Architect for approval a construction schedule. The schedule shall indicate the tasks to be performed with a time schedule indicating the start and completion date of each task.

### 3.01 SITE SUPERVISION

- A. The Contractor shall provide a full time site superintendent for the duration of the project.

END OF SECTION

## **SECTION 01 33 00**

### **SUBMITTALS**

#### **PART 1 - GENERAL**

##### **1.01 GENERAL CONDITIONS**

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### **1.02 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

- A. Shop drawings will be required within 20 days of the Notice to Proceed or Contract.
- B. Samples:
  - 1. Office samples of sufficient size and quantity shall clearly illustrate:
    - a. Functional characteristics of product or material, with integrally related parts and attachment devices.
- C. General Contractor's Responsibilities:
  - 1. Coordinate each submittal with requirements of contract documents.
  - 2. The general contractor's responsibility for errors and omissions in submittals is not relieved by the Architect's review and approval of submittals.
  - 3. Notify the Architect in writing at time of submission, of deviations in submittals from requirements of contract documents or previous submissions.
  - 4. Work that requires submittals shall not commence unless submittals with Architect's stamp and initials or signature indicating review and approval.
  - 5. After Architect's review and approval, distribute copies.
- D. Submission Requirements:
  - 1. Make submittals promptly in accordance with approved schedules, and in such sequence as to cause no delay in the work.
  - 2. Shop drawings shall be submitted in accordance with Article 3, Section 3.12 of the Amendments and Supplements to AIA General Conditions.
  - 3. Submit number of samples specified in each Section of the Specification.
  - 4. Forward submittals with transmittal letter, in duplicate.

5. Submittals shall include:

- a. Date and revision dates
- b. Project title and number
- c. The names of:
  - 1) Architect
  - 2) General Contractor
  - 3) Sub-contractor
  - 4) Supplier
  - 5) Manufacturer
  - 6) Separate detailer when pertinent
- d. Identification of product or material
- e. Relation to adjacent structure or materials
- f. Field dimensions, clearly identified as such
- g. Specification section number
- h. Applicable standards, such as ASTM number
- I. A blank space, five-inch by four-inch, for designer's stamp
- j. Identification of deviations from contract documents
- k. Contractor's stamp, initialed or signed certifying review and approval of submittal.

E. Re-submission Requirements:

1. Product Data and Samples: Submit new data and samples as required from previous submittals.

F. Distribution of Submittals After Review and Approval:

1. Distribute copies of shop drawings and product data that display the Architect's stamp to appropriate sub-contractors.
2. Distribute one approved copy of shop drawings and product data to the project manager.
3. Distribute samples as directed by the Architect.

**END OF SECTION**



## SECTION 01 70 00

### CONTRACT CLOSEOUT

#### PART 1 - GENERAL

##### 1.01 GENERAL CONDITIONS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### 1.02 FINAL CLEANING

- A. Unless otherwise specified under the various sections of the specifications, the general contractor shall perform final cleaning operations as herein specified prior to final inspection.
- B. Maintain project site free from accumulations of waste, debris, and rubbish, caused by operations. At completion of work, remove water, materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave project clean and ready for occupancy.
- C. Cleaning shall include all surfaces, on which the general contractor has performed work and has used as access to areas where work was performed whether existing or new.
- D. Refer to sections of the specifications for cleaning of specific products or work.
- E. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- F. Use only those cleaning materials and methods that are recommended by the manufacturer or surface material to be cleaned.
- G. Employ experienced workmen, or professional cleaners, for final cleaning operations.
- H. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.

##### 1.03 RECORD DRAWINGS

- A. Record drawings shall consist of all the contract drawings.
- B. The general contractor shall be required to maintain one set of record drawings, as the work relates to their sections of the specifications at the site.
- C. The record drawings shall be stored and maintained in the general contractor's office apart from other documents used for construction. The record drawings shall be maintained in a clean, dry and legible condition and shall not be used for construction purposes.

- D. Record drawings, as submitted by the general contractor, shall be verified in the field by the Architect or his consultants. Verification by the Architect shall occur during the construction process and prior to the related work being completed and covered up.
- E. The record drawing shall be available at all time for inspection by the Architects. All deficiencies noted shall be promptly corrected.
- F. The following information shall be indicated on the record drawings:
  - 1. Record all changes, including change orders, in the location, size, number and type both horizontally and vertically of all elements of the project which deviate from those indicated on all the contract drawings.
  - 2. The tolerance for the actual location of utilities and appurtenances within the building to be marked on the record drawings shall be plus or minus two (2) inches.
  - 3. The location of all underground utilities and appurtenances referenced to permanent surface improvements, both horizontally and vertically at ten (10) feet intervals and at all changes of direction.
  - 4. The location of all internal utilities and appurtenances, concealed by finish materials, including but, not limited to valves, coils, dampers, vents cleanouts, strainers, pipes, junction boxes, turning vanes, variable and constant volume boxes, ducts, traps and maintenance devices. The location of these internal utilities, appurtenances and devices shall be shown by offsets to the column grid lines on the drawings.
  - 5. Each of the utilities and appurtenances shall be referenced by showing a tag number, area served and function on the record drawings.
- G. At the end of each month and before payment for materials installed, the general contractor, his subcontractors, and the Architect shall review record drawings for purpose of payment. IF THE CHANGES IN LOCATION OF ALL INSTALLED ELEMENTS ARE NOT SHOWN ON THE RECORD DRAWINGS AND VERIFIED IN THE FIELD, THEN THE MATERIAL SHALL NOT BE CONSIDERED AS INSTALLED AND PAYMENT WILL BE WITHHELD.
- H. At the completion of the contract, each subcontractor shall submit to the general contractor a complete set of his respective record drawings indicating all changes. After checking the above drawings, the general contractor shall certify in writing on the title sheet of the drawings that they are complete and correct and shall submit the record drawings to the Architect. The contractor shall submit an electronic version of the Record Drawings along with a hard copy.

#### 1.04 CLOSEOUT REQUIREMENTS AND SUBMITTALS

- A. Substantial Completion: As the project nears completion, the G.C. shall issue a list of incomplete items or items that need to be corrected (punchlist), to the Architect. The Architect shall review the list, make a visit to continue or dispute the list, and issue a Certificate of Substantial Completion if deemed to be such.
- B. Final Inspection:
  - 1. The general contractor shall submit written certification that:
    - a) Project has been inspected for compliance with contract documents and has satisfied the Building Department and local Fire Department.
    - b) Equipment and systems have been tested in the presence of Architect and are operational and satisfactory.
    - c) Project is completed, and ready for final inspection.
  - 2. Building Department Use and Occupancy Permit:
    - a) Arrange for a final inspection and secure the signed Certificate of Inspection for Use and Occupancy from the Building Department.

#### 1.05 GUARANTEES AND WARRANTIES

- A. Submit to the Architect all extended guarantees and warranties that have been specified in various, individual sections of the specifications.

END OF SECTION

## SECTION 03 30 00

### CAST-IN-PLACE CONCRETE AND CONCRETE PAVING

#### PART 1 - GENERAL

##### 1.01 GENERAL CONDITIONS

- A. The Sections of these Specifications entitled Special Conditions, Minimum Wage Determination, and Division 1 General Requirements shall apply and are hereby made a part of this section of the Specifications.
- B. Prior experience – Contractor shall have at least 5 years of flatwork and vertical concrete experience and provide a list of similar projects over the last 5 years with contact person and phone number.

##### 1.02 WORK TO BE PERFORMED

- A. The work of this Section consists of all cast-in-place concrete and concrete paving work as shown on the Drawings and as specified herein, and includes, but is not limited to, the following:
  - 1. Furnishing, placing, curing and finishing of all plain and reinforced concrete work for the new walks, walls, stairs, ramp and concrete paving.
  - 2. Furnishing and placing of reinforcing steel.
  - 3. Furnishing, erection and removal of form work.
  - 4. Furnishing and installation of joint fillers, expansion joints and sealants.
  - 5. Concrete mix design.
  - 6. All concrete repairs.
  - 7. Finishing of elastomeric coating at new and existing exposed concrete walls as herein specified.
  - 8. Finishing and Installation of anchor bolts, key way, epoxy dowels and anchors, etc. as specified herein or indicated on drawings.
  - 9. Furnishing and installing new concrete curbing.
  - 10. Cast-in-Place detectable warning strip
  - 11. Filling and capping of bollards furnished by other trades.
  - 12. Alternate No. 1: Sealing of concrete flatwork.
  - 13. Alternate No. 2: New concrete theater exit landing and stairs.

##### 1.03 REFERENCE SPECIFICATIONS

- A. American Society for Testing and Materials (ASTM): Listed Standards.
- B. American Concrete Institute (ACI): Listed Standards.
- C. Concrete Reinforcing Steel Institute: Listed Standards
- D. ACI 211.1, "Recommended Practice for Selecting Proportions for Normal and Heavyweights."
- E. ACI 211.1, "Recommended Practice for Selecting Proportions for Structural Lightweight Concrete."
- F. ACI 214, "Recommended Practice for Evaluation of Compression Test Results of Field Concrete."
- G. ACI 301, "Specifications for Structural Concrete for Buildings."
- H. ACI 302, "Recommended Practice for Concrete Floor and Slab Construction."
- I. ACI 304, "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete."
- J. ACI 305, "Recommended Practice for Hot Weather Concreting."
- K. ACI 306, "Recommended Practice for Cold Weather Concreting."
- L. ACI 309, "Consolidation of Concrete."

- M. ACI 311, "Recommended Practice for Concrete Inspection."
- N. ACI 315, "Recommended Practice for Detailing Reinforced Concrete Structures."
- O. ACI 318, "Building Code Requirements for Reinforced Concrete."
- P. ACI 347, "Recommended Practice for Concrete Formwork."
- Q. CRSI, "Reinforced Concrete - A Manual of Standard Practice."
- R. CRSI, "Recommended Practice for Placing Reinforcing Bars."
- S. CRSI, "Recommended Practice for Placing Bar Supports."

#### 1.05 SUBMITTALS

- A. Submit concrete mix design and manufacturer's data for all other products required by this scope for Architect's approval.
- B. Provide shop drawings for fabricating and placing reinforcing steel. Show all required information for cutting, bending and placing reinforcing bars, and show all accessories and support bars on placing drawings. Indicate suitable marks for placing bars.
- C. Fabrication of any material or performing of any work prior to the final approval of the shop drawings will be entirely at the risk of the Contractor.
- D. The Contractor is responsible for furnishing and installing materials called for in Contract Documents, even though these materials may have been omitted from approved shop drawings.
- E. Before being submitted to the Architect, all shop drawings shall be properly checked and coordinated by the Fabricator and by the Contractor and shall be stamped and signed accordingly. Drawings not complying with these requirements will be returned unchecked and stamped, "Not Accepted."

#### 1.06 TESTING, CONTROL AND INSPECTION

- A. The Owner shall retain the services of a qualified independent testing agency, for the following testing and inspections.
  - 1. Concrete test cylinder sets shall be taken for each day of concrete placements.
  - 2. Reinforcing steel shall be inspected for grade, condition and positioning prior to each concrete placement.
  - 3. Any non-conformance with these Specifications shall be brought to the attention of the Contractor for correction.
- B. Cooperate fully with the testing agency's work in taking and storing samples. Provide storage facilities for concrete cylinders at the site. Facilities must protect cylinders from effects of low or high temperatures.
- C. Accept as final results of tests made by the qualified professional testing organization engaged by the Owner.
- D. Testing required because of changes requested by the Contractor in materials, sources of materials, or mix proportions; and extra testing of concrete or materials because of failure to meet the Specification requirements are to be paid for by the Contractor.
- E. Advise the Testing Agency of intent to place concrete by notification at least 48 hours prior to time of placement.
- F. All materials, measuring, mixing, transportation, placing and curing shall be subject to inspection by the Architect or by the Testing Agency. However, such inspection, wherever conducted, shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with Contract requirements, nor shall inspector's acceptance of material or workmanship prevent later rejection of same by the Owner or Architect if defects are discovered.

#### 1.07 NOTIFICATION OF RELATED TRADES

- A. Notify all other trades responsible for installing chases, inserts, sleeves, anchors, etc., when ready for such installation, and for final checking immediately before concrete is placed. Cooperate with such trades to obtain proper installation.

## PART 2 - MATERIALS

### 2.01 CONCRETE

- A. Portland Cement: ASTM C-150 Type I. All cement shall be from a single source.
- B. Natural Aggregates:
  - 1. Fine Aggregates for Concrete: Shall be natural sand consisting of clean, hard, durable, uncoated particles, conforming to ASTM C33. Organic content shall be determined according to ASTM C40, and supernatant liquid above test samples shall show color no darker than reference standard color solution prepared at same time. Allow no frozen or partially frozen aggregate in the mix.
  - 2. Coarse Aggregate for Concrete: For regular concrete use crushed stone or gravel from approved source conforming to ASTM C33. Coarse aggregate shall not contain greater amount of deleterious materials than specified in Table III, ASTM C33.
- C. Water from approved source, potable, clean and free of oils, salt, alkali, organic matter and other deleterious material.
- D. Admixtures:
  - 1. Water Reducing Agent ASTM C494, Type A: "WRDA" by W.R. Grace Co., or equal approved by the Architect. Water-reducing agent must be by same manufacturer as air-entraining agent.
  - 2. Air-entraining agent ASTM C260: "Darex" by W.R. Grace Co., or equal approved by the Architect. Air-entraining agent must be by same manufacturer as water-reducing agent.
  - 3. Other admixtures may be used, but only with the written approval of the Architect.
- E. Concrete Mix
  - 1. Design mix shall be 4000 psi concrete with  $\frac{3}{4}$  aggregate as specified below.

Concrete Mix Design for 4000  $\frac{3}{4}$  Standard Mix

611 lb Cement Type II

1242 lb Sand

1300 lb  $\frac{3}{4}$  Stone

500 lb  $\frac{3}{8}$  Stone

31.0 gal Water

1.5 oz MBVR-C

30.6 oz Glenium 3030NS

0.42 w/c Ratio

Slump 3" – 4"

Air Content 6% +/- 1.5%

- F. Concrete Reinforcement:
  - 1. All reinforcing steel shall conform to ASTM Specification A-615 Grade 60, deformed bars.
  - 2. Welded wire fabric shall conform to ASTM Specification A-185. Supply in flat sheets size W4 x 4: W4.0 x W4.0 WWF unless indicated otherwise on drawings.
  - 3. Bar supports, metal accessories and other devices necessary for proper assembly of concrete reinforcing shall be of standardized factory-made wire bar supports. All bar supports in exposed concrete shall have plastic tips to prevent rust spots on exposed surfaces. Wire for tying shall be 18 gauge black annealed wire conforming to ASTM Specification A-82.
- G. Form work:
  - 1. Forms: Except for exposed surfaces, form work material shall be exterior "plyform" Class 1, B-B or as approved by the Architect, not less than  $\frac{5}{8}$  inch thick. For all exposed surfaces plywood forms shall be plastic coated. Provide suitable form inserts for reglets, rustication joints and chamfers as required on the Architectural Drawings.
  - 2. Form Oil: Oil shall be of a non-staining type, specifically manufactured for concrete forms.
  - 3. Form Ties: Except for exposed surfaces, factory-fabricated, removable or snap back, of approved design. Wire shall be at least 1-1/2 inch back from surfaces. For all exposed concrete work forms shall be tied in such a way that no evidence of ties is visible on the finished surfaces.

- H. Concrete Patching Compound shall be:

1. "SIKATOP 122" by Sika Corporation,
2. "DARAWELD-C" by W.R. Grace
3. "EMACO 100" by BASF
4. Or equal approved by the Architect.

I. Elastomeric Concrete Coating:

Elastomeric, acrylic-based, decorative coating that weatherproofs and bridges hair line cracks. Provide manufacturer's recommended primer coat and crack sealer.

1. Stochastic sand, with STO HOT prime and SO flexible crack filler.
2. Sherlastic 100% acrylic, with LOXON concrete and masonry primer/sealer.

J. Concrete curing membranes shall be:

1. White polyethylene sheeting 4 mils thick, ASTM C171; or
2. Waterproof paper, Sisalkraft Type, ASTM C171-69; or
3. Moisture curing shall be performed as specified in ACI 301 paragraph 12.2.1.1 - 12.2.1.4. Liquid membrane curing compounds may be used, but only with the approval of the Architect.

K. Concrete inserts shall be as required on the Drawings.

L. Joint Filler: Where used with caulking or sealants shall be non-extruding, self-expanding filler strips conforming to ASTM D1752, Type III, and AASHTO N153, Type II, as manufactured by Celotex Corporation, W.R. Meadows, Inc., W.R. Grace and Company, or equal approved by the Architect. Where no sealant or caulking is required, strips may be non-extruding bituminous type in accordance with ASTM D1751.

M. Joint Filler Sealant: Polyurethane Sealant - Gray

1. Loctite PL 520.
2. PL self covering concrete crack sealant by Henkel Consumer Adhesives.
3. Deck-O-Seal 150 by W.R. Meadows or equal.

N. Alternate No. 1: Concrete Sealer:

1. California Performance Coatings, Weatherplate Clear Waterproof Sealer.
2. SUPERSEAL-M by Clemons Concrete Coatings
3. H & C Concrete Masonry Waterproofing Sealer by Sherwin Williams
4. Or equal

## 2.02 STORAGE OF MATERIALS

- A. All materials shall be stored to prevent damage from the elements and other causes.
- B. Cement and aggregates shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Any materials which have deteriorated, or which have been damaged, shall not be used for concrete.
- B. Store reinforcement steel on wood skids to protect it from weather, oil, earth and damage from trucking or other construction operations. Reinforcement shall be free from loose mill scale, rust, oil, concrete splatter and other extraneous coatings at the time it is embedded in the concrete.
- C. All materials must be stored within the limit of work area or at an insured warehouse of the contractor's choosing.

## 2.03 PRECAST CONCRETE WHEEL STOP

- A. Pre-cast concrete wheel stop shall conform to Subsection M4.02.00 of the Massachusetts Standard Specifications. Wheel stops are to be pinned and grouted in place. Wheel stops are to be 4000 min PSI concrete with #4 steel reinforcement bar and with radiused edges to resist chipping. Wheel stops are to be 6' long by 9" wide and 5" tall.

## PART 3 - EXECUTION

### 3.01 FORMING FOR CAST-IN-PLACE CONCRETE

- A. ACI 301, latest edition, "Specifications for Structural Concrete for Buildings", Chapter 4 Framework, is hereby made a part of this Specification.

- B. Forms shall be constructed to conform to shapes, lines and dimensions shown, plumb and straight, and shall be maintained sufficiently rigid to prevent deformation under load. Forms shall be sufficiently tight to prevent the leakage of grout. Securely brace and shore forms to prevent the leakage of grout. Securely brace and shore forms to prevent their displacement and to safely support the construction loads.
- C. Treat forms with a form release agent applied according to the manufacturer's instructions, by roller, brush or spray to produce a uniform thin film without bubbles or streaks. Apply the release agent in two coats for the first use of the form and in one coat for each additional use.
- D. ACI-301-89, Section 13.3 - Forms, is also hereby made a part of this Specification.

### 3.02 MIXING PROCESS FOR CAST-IN-PLACE CONCRETE

- A. Ready-mixed concrete shall be mixed and transported in accordance with "Specification for Ready-Mixed Concrete" ASTM C94, Alt. No. 3 and ACI STANDARD 304, "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete."

### 3.03 REINFORCING FOR CAST-IN-PLACE CONCRETE

- A. ACI 301, latest edition, "Specification for Structural Concrete for Buildings", Chapter 5 - Reinforcement, is hereby made a part of this Section.

### 3.04 EMBEDDED ITEMS FOR CAST-IN-PLACE CONCRETE

- A. Coordinate the installation of all inserts required by other trades. Such inserts normally are to be in place prior to the placing of reinforcing steel.
- B. Place all required anchor bolts, anchor plates and dowels.
- C. ACI 301-89, "Specification for Structural Concrete for Buildings", Sections 6.4 and 6.5, are hereby made a part of this Specification.

### 3.05 JOINTS FOR CAST-IN-PLACE CONCRETE

- A. ACI 301-89, "Specifications for Structural Concrete for Buildings", Sections 6.1, 6.2 and 6.3 are hereby made a part of this Specification.
- B. Construction joints shall be formed with keyed bulkheads.
- C. Control joints shall be as shown on the drawings.

### 3.06 PLACING OF CAST-IN-PLACE CONCRETE

- A. Notify the Architect and testing agent at least 48 hours prior to each placement.
- B. Do not place concrete until reinforcing steel, inserts, sleeves and other work to be built into the concrete have been inspected and approved by the Architect or the Owner's representative and by all other trades concerned.
- C. In hot weather, all concreting shall be done in accordance with ACI 305, "Recommended Practice for Hot Weather Concreting".
  - 1. When temperature rises above 70 degrees F., all surfaces of concrete shall be protected against rapid drying.
  - 2. Concrete delivered to the forms shall have a temperature of not over 90 degrees F.
  - 3. The temperature of the forms shall be not over 90 degrees F.
- D. In cold weather, all concreting shall be done in accordance with ACI 306, "Recommended Practice for Cold Weather Concreting".
  - 1. When the average daily temperature falls below 40 degrees F., all surfaces of concrete shall be maintained at a temperature of at least 50 degrees F., and not over 90 degrees F, for seven (7) days.
  - 2. Concrete delivered to the forms shall have a temperature of at least 60 degrees F., and not over 90 degrees F.
  - 3. The temperature of the forms shall be at least 40 degrees F.



4. The Contractor shall maintain a record of temperature of the concrete at the most exposed surfaces of each placement at the beginning and at the end of each day of the curing period, which record shall be available to the Architect.
- E. Conveying: Concrete shall be handled from the mixer to the place of final deposit as rapidly as practicable by methods which will prevent separation or loss of ingredients and in a manner which will assure that the required quality of the concrete is retained.
- F. Depositing: Delivery and placement of concrete shall be programmed so that the time lapse between batching and placement shall not exceed 1-1/2 hours. Concrete shall not be allowed a free fall of over 4 feet. Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing.
- G. Concrete shall be deposited continuously, in horizontal layers of such thickness (not deeper than 18 inches) that no concrete will be deposited on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness within the section. Placing shall be carried out at such a rate that the concrete which is being integrated with fresh concrete is still plastic. Concrete which has partially hardened or which has been contaminated by foreign materials shall not be deposited.
- H. Concrete shall be compacted thoroughly by vibrating to produce a dense, homogenous mass without voids or pockets. Vibrators should be placed in concrete so as to penetrate approximately 3 inches to 4 inches into the preceding lift so as to blend the two layers. Vibrating techniques must assure that, when the coarse aggregate reaches the form, it stops and the matrix fills the voids.
- I. The Contractor shall become familiar with ACI-303, Chapter 7 regarding Placing and Consolidation of Architectural Concrete. All applicable recommendations contained within ACI-303 shall be strictly followed.

### 3.07 PATCHING OF EXISTING CONCRETE

- A. All existing concrete wall surfaces to remain are to be power washed. Washer shall have at least 3,000 psi pressure rating and a flow rate of 4 gallons per minute. Utilize a high pressure spray tip. Add tri-sodium phosphate to spray solution as needed to remove mold and fungus. Cover all exposed outlets / wires / openings with plastic tarp to protect during power washing.
- B. Apply patching compound to areas of spalling and large cracks too big for crack filler, per manufacturers' recommendations.

### 3.08 ELASTOMERIC COATING APPLICATION

- A. Clean existing and new walls per manufacturer's recommendations. Rob new walls to remove form irregularities to obtain a smooth surface.
- B. Fill cracks greater than 1/32" with recommended crack filler
- C. Prime walls with coating manufacturer's primer
- D. Apply two coats of elastomeric sealing per the manufacturer's recommendations.

### 3.09 CONCRETE WALKS, STAIRS AND RAMP

- A. Construct walks as shown on plans. Concrete shall be 4,000 psi strength, air entrained.
- B. Expansion joints shall be provided as indicated on drawings or every 24 feet along walks max IF not noted. Expansion joints shall consist of 1/2" pre-molded joint filler capped with 1/2" polyurethane sealant.
- C. Provide a tooled joint pattern of regular sized panels as indicated on drawings.
- D. Concrete walks shall have a broom finish.

### 3.10 CEMENT CONCRETE CURB



- A. Pre-cast cement concrete wheel stop shall be furnished and set where shown on the Drawings. Cement concrete curb shall be furnished and set in accordance with Subsections 501.20, 501.60, 501.61, 501.62, 501.63, 501.65 and 501.67 of the Massachusetts Standard Specifications and as shown on the Drawings.

### 3.11 CURING AND PROTECTION

- A. Protect newly placed concrete against low and high temperature effects and against rapid loss of moisture. Moist cure all concrete for at least seven days at a temperature of at least 50 degrees F by curing methods approved by the Architect.
- B. For vertical or near-vertical surfaces, moist cure by keeping the form in contact with the concrete, or by other effective means approved by the Architect. Intermittent wetting and drying does not provide acceptable curing.
- C. Cure walkway slabs by covering with sisal or other waterproof curing paper conforming to ASTM Specifications C 171, lapped 4 inches at edges and sealed with tape at least three inches wide. The paper shall be weighted to prevent displacement, and holes or tears shall be immediately repaired.
- D. The Contractor may submit for the approval of the Architect alternative methods of curing non-exposed concrete surfaces. Approval of the alternatives shall not relieve the Contractor of his responsibility for the proper curing of all concrete.
- E. In hot weather, be adequately prepared to protect the concrete from the adverse influence of heat before the placement of any concrete. Take special precautions to avoid cracking of the concrete from rapid drying during placement of concrete when air temperature exceeds 70 degrees F., particularly when the work is exposed to direct sunlight.
  - 1. Cool forms by fog sprayed with water or by protecting them from the direct rays of the sun.
  - 2. If requested by the Contractor, deemed advisable by the Testing Engineer, and approved by the Architect, a retardant may be used to delay the initial set of the mix.
- F. In cold weather, be adequately prepared to protect the concrete from the adverse influence of cold before placement of any concrete.
  - 1. When the average daily temperature falls below 50 degrees F., take special precautions to assure adequate strength gain of the concrete.
  - 2. When the average daily temperature falls below 40 degrees F., prepare concrete with heated materials such that the concrete delivered to the forms shall have a temperature of at least 60 degrees F., and not over 90 degrees F. Prewarm the forms to at least 40 degrees F., to prevent the rapid cooling of the concrete by their contact; keep forms free of all ice and snow. When heated materials are being used, combine the warm water with the aggregate in the mixer and keep the resulting temperature below 90 degrees F. before cement is added to the mix. Protect all concrete by the use of heated enclosures which must be sufficiently strong and windproof and within which adequate heaters are properly distributed to maintain all concrete at the required temperatures. Do not allow heaters to locally heat or dry the concrete and do maintain adequate fire precautions.

### 3.12 ACCEPTANCE

- A. When the tests on control specimens of concrete fall below the required strength, the Architect shall have the right to require, at the Contractor's expense, mix redesign, load tests and/or strengthening as directed, and/or removal and replacement of those parts of the structure in which such concrete was used.

### 3.13 EPOXY BONDING

- A. Where required, new concrete shall be bonded to hardened new concrete or existing concrete in accordance with the adhesive manufacturer's instructions.

### 3.14 CLEANING

- A. The exposed faces of the cast-in-place concrete shall be cleaned of all stains, water marks and leaked fines.

END OF SECTION

## SECTION 04 20 00

### THIN BRICK VENEER

#### PART 1 - GENERAL

##### 1.01 GENERAL CONDITIONS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### 1.02 WORK INCLUDED

- A. Provide a thick bed, thin brick veneer system to the face of the ramp as indicated on the drawings
  - 1. Provide solid, manufactured thin brick veneer for exterior individual unit application on concrete substrate.
  - 2. Lathe wire and fasteners.
  - 3. Scratch and bond coats and grouting mortar
  - 4. Veneer cleaning and sealing.

##### 1.03 RELATED SECTIONS

- A. Section 03 30 00 Concrete

##### 1.04 REFERENCES

- A. ASTM C5 – Standard Specification for Quicklime for Structural Purposes
- B. ASTM C144 – Standard Specification for Aggregate for Masonry Mortar
- C. ASTM C150 – Standard Specification for Portland Cement
- D. ASTM C207 – Standard Specification for Hydrated lime for Masonry Purposes
- E. UL 723 – Test surface Burning Characteristics of Building Materials
- F. ASTM C1088 – Standard Specifications for Thin Veneer Brick Units Made from Clay or Shale

##### 1.05 SUBMITTALS

- A. Submit following:
  - 1. Product Data: Submit for all specified products. Include all applicable physical and performance data.
  - 2. Samples: Submit 4 samples of thin brick/panel brick veneer units to illustrate color, texture, and size range of each type unit.
  - 3. Manufacturer's detailed installation instructions
  - 4. List of similar projects on which installer has provided thin brick veneer system.

##### 1.06 FIELD SAMPLES

- A. Sample Installation: Construct thin brick to 3 feet by 4 feet panel size in place, prepared substrate surfaces, including

scratch and bond coats, setting coat, thin brick, joint work, grout color, expansion joints and control joints and sealants.

1. Obtain Architect's approval before beginning work.
2. Accepted Field Sample: may remain as part of completed work.

#### 1.07 QUALITY ASSURANCE

- A. Installer: Experienced in similar types of work of similar scope and be able to furnish list of 5 previous jobs and references.
- B. Expansion Joints: Provide expansion joints as indicated on Drawings or, if not indicated, install at frequency and in accordance with details and as recommended by manufacturer. Confirm locations and frequency with Architect before beginning work.

#### 1.08 PROJECT CONDITIONS

- A. Environmental Requirements.
  1. Minimum air temperature of 40 degrees F (4 degrees C) prior to, during, and for 48 hours after completion of work; and
  2. Cold Weather Requirements: IMIAC (International Masonry Industry All-Weather Council) – Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.
- B. Qualifications:
  1. Fabricator/Installer: minimum of 5 years documented experience demonstrating previously successful work of the type specified herein, and approved by product manufacturer.
  2. Welders: Utilize only qualified welders employed on the work. Submit verification that welders are AWS D1.1 and D1.4 qualified within the previous 12 months.
  3. Licensed Professionals: Provide the services of a Professional Structural Engineer, registered in the Commonwealth of Massachusetts to design and certify that the work of this section meets or exceeds the performance requirements specified in this section and as required by Massachusetts State Building Code.
    - a. Prepare shop Drawings for stairs, railings, and handrail brackets under direct supervision of a same Engineer experienced in design of this work.

#### 1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, handle, and protect materials in accordance with below:
  1. Store mortar materials on pallets in dry place
  2. Protect Materials from rain, moisture, and freezing temperatures.
  3. Store manufactured thin brick veneer above ground on level platforms, which allow air circulation under stacked units.
  4. Handle units on pallets or flat bed barrows.

#### 1.10 WARRANTY

- A. Special Warranty: Prepare and submit in accordance with the "Closeout" section
  1. Provide a 20-year warranty against manufacturing defects in manufactured thin brick veneer products.
- B. Installers Warranty: Warranty materials and workmanship against defects after project substantial completion. Warranty to cover repairs / replacement with new material at no expense to the Owner.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. Provide a thin brick, thick bed system with leveling coat as specified below subject to compliance with requirements:
  1. Thin Brick by Owensboro. 1120 Ewing Road, Owensboro, Kentucky 42301, 270-684-7268, 270-685-5128
  2. Thin Brick by Belden Brick Company, Canton, OH 44701, 330-451-2031
  3. Thin Brick by Cherokee Brick and Tile Co., Macon, Georgia 31208, 478-781-6800
  4. Or equal
    - a. Thin Brick Veneer Style/color: Match existing building brick.

## 2.02 THIN BRICK SYSTEM

- A. Thin Brick Veneer:
  - 1. Kiln fired thin brick, composed of the following materials:
    - a. Clay, shale, fire clay, sand or mixtures thereof, kiln fired to fusion to produce clay masonry units per ASTM C1088, Type TBS (Thin Brick Standard) Grade SW / Exterior
  - 2. Freeze and Thawing: No breakage and not greater than 0.5% loss in dry weight when tested in accordance with ASTM C1088.
  - 3. Thin Brick veneer size: 7 ½ (L) inches by 2 ¼ (H) inches by ½ thick.
- B. Thin brick special shapes: corner units.
- C. Wire Lath & fasteners: 3.4# galvanized diamond wire mesh. Tap-Con fasteners with min. 1 ½" embedment.
- D. Scratch Coat: Exterior polymer fortified thin set mortar equal to 255 Multimax Multi-purpose thin set mortar by Laticrete.
- E. Bond Coat: Second coat of thin set mortar provided for scratch coat.
- F. Grouting Mortar: High strength Portland cement mortar mix with natural sand aggregates and color fast pigments to match existing mortar colors, masonry pointing mortar by Laticrete or equal.
- G. Cleaner: Non-acid cleaner recommended by thin brick manufacturer.
- H. Joint Sealants: Silicone sealant formulated to bond to masonry, Dow Corning 795 Silicone Building Sealant or equal.
- I. Thin Brick Sealants: Clear drying penetrating natural look latex based sealer as recommended by Berck Manufacturer UGL drylok natural look sealer or equal.

## PART 3 - EXECUTION

### 3.01 EXAMINATION AND PREPARATION

- A. Examination:
  - 1. Verify that field conditions are acceptable and are ready to receive work in accordance with the manufacturers written installation instructions.
  - 2. Verify that built-in items are in proper location and ready for roughing into masonry work.
  - 3. Consult Architect if deficiencies exist. Correct deficiencies in accordance with requirements of thin brick veneer manufacturer's written installation instructions.
- B. Protect surrounding area from possible damage during installation work.
- C. Initiating installation constitutes Installer's acceptance of substrates.

### 3.02 INSTALLATION

- A. Wire Lath:
  - 1. Apply wire mesh horizontally, with fish mouths facing up starting at the base of the wall, and lapping each successive upper sheet over the previous lower sheet.
  - 2. Lap horizontal and vertical joints 6 inches. Do not locate caps at corners.
  - 3. Install with Tap-Con screws with minimum 1 1/2" embedment in a 12" grid.
- B. Scratch Coat:
  - 1. Apply scratch coat per the manufacturer's recommendation fully embedding wire lath. Press material through lath to substrate to ensure bond to substrate. If applied in hot weather, follow manufacturer's recommendations for curing material.
- C. Thin Brick:
  - 1. Place thin brick pieces in position level, with 3/8 inch joint spacing, plumb with surrounding units. Apply firm pressure to bed the unit solidly in the bond coat.
    - a. Bond Pattern: Running bond, or as indicated on the Drawings.
    - b. Install outside corner return units with short and long lengths alternated.

D. Bond Coat:

1. Apply bond coat after scratch coat has sufficient time to cure. Apply thin coat sufficient to bond thin brick.

E. Locate vertical control joints at 2' - 0" from corners and at 25' intervals.

F. Jointing:

1. Install grouting mortar to thin brick veneer joints using a tuck pointing tool, metal tipped mortar bag or grout setting machine in accordance with the manufacturers written installation instructions.
  - a. Fill joints completely with mortar.
  - b. Remove excess mortar; do not allow mortar to dry on face of units.
  - c. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness, unless otherwise indicated.
  - d. Clean and finish joints in accordance with manufacturer's instructions.

### 3.03 CLEANING AND SEALING

A. Cleaning:

1. Remove excess mortar and smears using brush or steel wool.
2. Replace defective mortar. Match adjacent work.
3. Clean soiled surfaces with non-acidic solution, acceptable to the thin brick veneer manufacturer, which will not harm masonry or adjacent materials.
4. Leave surfaces thoroughly clean and free of mortar and other soiling.
5. Use nonmetallic tools in cleaning operations.

**END OF SECTION**

## SECTION 05 50 00

### MISCELLANEOUS METALS (Filed Sub-Bid Required)

#### PART 1 - GENERAL

##### 1.01 GENERAL CONDITIONS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### 1.02 FILING OF SUB-BIDS

- A. Sub-bids shall be submitted for the Work of this Section in accordance with the provisions of M.G.L. c.149 §§44A-J. The time and place for submission of sub-bids are set forth in the **Advertisement**. The procedures and requirements for submitting sub-bids are set forth in the **Instructions to Bidders**.
- B. Sub-bidders must be DCAM Certified in the listed trade and shall include a Current DCAM sub-bidder Certificate of Eligibility and a signed DCAM Sub-bidder's Update Statement with the bid
- C. SUB-SUBS
  - 1. Sub-sub bids are not required for this. Paragraph E of the Form for sub-bid shall be left blank or marked N/A.

##### 1.03 SUMMARY

- A. Furnish and install:
  - 1. Exterior railings and metal clips at all new ramps and stairs, galvanized and factory applied coating.
  - 2. All anchors and anchoring cement
  - 3. Coring for railing posts
- B. Perform all drilling and cutting in miscellaneous metal items required for the attachment of other items.
- C. Fill all vent holes after galvanizing and grind smooth.
- D. Perform application of field touch-up coating to all welds of factory finished steel items furnished hereunder.
- E. Provide engineering for Misc. Metals for loading and stresses.

##### 1.04 REFERENCES

- A. Comply with applicable requirements of the following standards and those others referenced in this Section. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
  - 1. ASTM A 53 – Pipe, steel, black and hot-dipped zinc coated, welded and seamless.
  - 2. ASTM A 108 – Standard Specification for Steel Bar, Carbon and Alloy, Cold Finished.
  - 3. ASTM A 123 – Zinc Coatings on Products Fabricated From Rolled, Pressed and Forged Steel Shapes, Plates, Bars, and Strip.

4. ASTM A 153 – Zinc-Coated on Iron and Steel Hardware.
5. ASTM A 283 – Carbon Steel Plates, Shapes, and Bars.
6. ASTM A 780 – Repair of Hot-Dip Galvanizing.
7. AGAI – Inspection Manual for Hot-Dipped Galvanized Products.
8. AISI – Reference standards.

#### 1.05 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
  5. Coordinate work of this Trade Contract with that of other trades, affecting or affected by this work, and cooperate with other trades as is necessary to assure the steady progress of work.
  6. Be responsible for establishing locations and levels for all work of this Section, except such parts as may be delivered to others and set by them. In such cases assist them in properly locating said parts.
- B. Sequencing:
  1. Field Measurements
    - a. Take field measurements before preparation of shop drawings and fabrication, where possible, to ensure proper fitting of Work.
    - b. Allow for adjustments within specified tolerances wherever taking of field measurements before fabrication might delay work.
- C. Scheduling:
  1. Coordinate the work of this section with the respective trades responsible for installing inserts and anchorages furnished by this section; make arrangements for delivery, receipt and installation of inserts and anchorages to prevent delay of the Work.

#### 1.06 SUBMITTALS

- A. Information and review submittals: Submit the following under provisions of section 01 33 00 Submittals:
  1. Product Data: Manufacturer's complete product data and specifications for all prefabricated items, shop primer paints, liquid zinc coating, and hydraulic cements, to be furnished hereunder.
    - a. For epoxy anchoring systems: Furnish ICC-ES Code approvals and performance data that includes recommended loading for each application.
  2. Shop Drawings:
    - a. Include large scale details of items of all metal fabrications to be furnished hereunder, showing proposed methods of anchorage to surrounding structure and conditions.
    - b. Include large scale details of stairs and railings, bearing registration stamp of Professional Structural Engineer registered in the Commonwealth of Massachusetts.
    - c. Indicate on the shop drawings all erection marks for various places of miscellaneous metals, and ensure that the actual field pieces bear corresponding marks.
  3. Verification Samples:
    - a. Factory/shop finishes: 3 inch by 6 inch samples of factory-applied coatings and colors proposed for use for approval prior to coating application.
  4. Certificates:
    - a. Certificate of Compliance from Galvanizer: Submit notarized Certificate of Compliance with application for payment for galvanizing, signed by galvanizer, indicating compliance with requirements of specifications. Include scope of services provided, and quantity and itemized description of items processed.
  5. Delegated Design Submittals:
    - a. Provide calculations for loading and stresses for metal stairs, landings and all railings (handrails and guardrails) bearing the Professional Structural Engineer's seal. Show how design load requirements and other performance requirements as required by the Massachusetts State Building Code have been satisfied.
- B. Closeout Submittals: All certifications, reports and programs required by Chapter 17 of the Massachusetts State Building code for work engineered by Trade Subcontractor's Professional Engineer under the requirements of this Section.

#### 1.07 QUALITY ASSURANCE

- A. General: Notify the Architect where conflicts apply between referenced standards and existing materials, and existing methods of construction.
  1. Galvanizer's tagging: The galvanizer shall mark all lots of material with a clearly visible stamp or tag indicating the name of the galvanizer, the weight of the zinc coating, and the applicable ASTM Specification Numbers.



B. Qualifications:

4. Fabricator/Installer: minimum of 5 years documented experience demonstrating previously successful work of the type specified herein, and approved by product manufacturer.
5. Welders: Utilize only qualified welders employed on the work. Submit verification that welders are AWS D1.1 and D1.4 qualified within the previous 12 months.
6. Licensed Professionals: Provide the services of a Professional Structural Engineer, registered in the Commonwealth of Massachusetts to design and certify that the work of this section meets or exceeds the performance requirements specified in this section and as required by Massachusetts State Building Code.
  - b. Prepare shop Drawings for stairs, railings, and handrail brackets under direct supervision of a same Engineer experienced in design of this work.

1.08 DELIVERY, STORAGE AND HANDLING

A. Storage and Handling Requirements:

1. Handle and store materials under cover in a manner to prevent defacement, deformation, or other damage to the materials and to shop finishes, and to prevent the accumulation of foreign matter on the metal work. All such work shall be repaired and cleaned prior to erection.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: All materials shall be new stock, free from defects impairing strength, durability or appearance, and of best commercial quality for each intended purpose. Unless specifically called for otherwise, work shall be fabricated from the following:
1. Steel shapes, plates and bars: ASTM Designation A36.
  2. Steel Pipe: ASTM A53, Grade A, seamless pipe, black finish unless otherwise noted Schedule 40 or 80 for 3 inch diameter pipe and smaller and Schedule 80 for all pipe over 3" in diameter. Type and grade as required for design loading.
  3. Steel Tubular shapes: ASTM A501.
  4. Steel Plates to be bent or cold-formed: ASTM A283, grade C.
  5. Steel bars and bar-size shapes: ASTM A36.
  6. Cold-finished steel bars: ASTM A108.
- B. Steel materials to be hot dip-galvanized: Provide steel chemically suitable for metal coatings complying with the following requirements: carbon below 0.25 percent, silicon below 0.24 percent, phosphorous below 0.05 percent, and manganese below 1.35 percent. Notify galvanizer if steel does not comply with these requirements to determine suitability for processing.
- C. Metal surfaces, general: For metal fabrications exposed to view upon completion of the work, provide materials selected for their surface flatness, smoothness and freedom from surface blemishes. Do not use materials whose exposed surfaces exhibit pitting, seam marks, roller marks, rolled trade names, roughness, and, for steel sheet, variations in flatness exceeding those permitted by reference standards for stretcher-leveled sheet.

2.02 FABRICATION - GENERAL

- A. Metal surfaces shall be clean and free from mill scale, flake, rust and rust pitting: well formed and finished to shape and size, true to details with straight, sharp lines, and angles and smooth surfaces. Curved work shall be to true radii. Exposed sheared edges shall be eased.
- B. Shop fabricate items wherever practicable, accurately fitting all parts and making all joints tight. Do not fabricate materials until all specified submittals have been submitted to and approved by the Architect.
- C. Do all cutting, punching, drilling, and tapping required for attachment of anchor bolts and other hardware and for attachment of work by other trades. All such work shall be done prior to hot-dip galvanizing of the various components.
- D. Grind all edges of bars and plates completely free from nicks and machine marks, prior to galvanizing and/or shop priming.
- E. Weld all permanent connections, make all welds in a continuous manner; tack-weld only where specifically indicated on the Drawings. Grind all exposed-to-view welds completely smooth and flush to the surface plane of the base metals. Perform welding work prior to galvanizing in all cases, except where field welding is necessary, in which case,



completely coat all such welds with two coats of specified liquid zinc coating, after performing grinding operations.

- F. Use screws and bolts only where welding cannot be performed, of sufficient size to ensure against loosening from normal usage of miscellaneous metal items furnished hereunder.
  - 1. Countersink all screw heads and bolt heads as far as practicable. Use not less than two screw, bolts, or other anchorage items, at each connection point.
  - 2. Draw up all threaded connections tightly, after buttering same with pipe joint compound, to exclude water.
- G. Carefully coordinate the installation of metal fabrications with the work of trades responsible for the installation of interfacing work, and for the installation of work into the various assemblies furnished hereunder, and permit the installation of the related materials to be made at the appropriate times.
- H. Fit and assemble metal fabrications in largest practical sections for deliver to site, ready for installation.
  - 1. Galvanized assemblies: Where size of assembly is too large for galvanizing kettle, galvanize components prior to fabrication and assemble after galvanizing.
- I. Refer to the Drawings for location and details of railings to be furnished and installed hereunder.
  - 1. Verify heights shown in drawings comply with referenced codes and regulations.
- J. Railing performance requirements:
  - 1. Railings: Design, fabricate and install all railings in a manner which will ensure the railings will be capable of withstanding loads as follows, required by the Massachusetts State Building Code, Eighth Edition, Section 1607
    - a. Resist a load of 50 pounds per linear foot (0.73 kN/m) applied in any direction at the top and to transfer load through railing supports to structure.
    - b. Resist a single concentrated load of 200 pounds (0.89kN) applied in any direction at any point along the top, and to transfer load through railing supports to structure. Concentrated loading requirements are not concurrent with other loading requirements.
    - c. Intermediate rails, balusters and panel fillers shall resist a horizontally applied load of 200 pounds (0.89 kN) on an area equal to 1 square foot (.093m<sup>2</sup>), including openings and space between rails. Reactions due to this loading are not required to be superimposed with loadings specified for top rail.

## 2.03 FACTORY APPLIED COATING FOR METAL & ANCHORS

- A. Galvanizing, primer and finish coat shall all be applied as a single source finish system as specified below. Acceptable processes shall be:
  - 1. Duragalv & Colorgalv by Duncan Galvanizing.
  - 2. Sure-Kote-Galv 12 system by Sure Kote-Galv systems or equal.
  - 3. Or equal.
- B. Hot-Dip Galvanizing: For steel exposed to the elements, weather or corrosive environments and other steel indicated to be galvanized, provide coating for iron and steel fabrications applied by the hot-dip process. Galvanizing bath shall contain special high grade zinc and other earthly materials.
  - 1. Comply with ASTM A 123 for fabricated products and ASTM A 153 for hardware.
  - 2. Provide thickness of galvanizing specified in referenced standards.
  - 3. Fill vent holes after galvanizing, if applicable, and grind smooth.
  - 4. Galvanizing shall exhibit a rugosity (smoothness) 4 rug or less (16-20 microns of variation) when measured by a profilometer over a 1 inch straight line on the surface of elements that are less than 24 pounds per running foot. Profilometer shall be capable of operating in 1 micron increments.
- C. Factory-Applied Architectural Finish Over Galvanized Steel: Provide factory-applied architectural coating over hot-dip galvanized steel matching approved samples.
  - 1. Primer coat shall be factory-applied polyamide epoxy primer. Apply primer within 12 hours after galvanizing at the same galvanizer's plant in a controlled environment meeting applicable environmental regulations and as recommended by the primer coating manufacturer or if primer is to be applied after 12 hours or at another facility buff blast all surfaces to SSPC-SP-16 specification or acceptable profile for coatings.
  - 2. Themec Hi-Build Epoxoline Series 66.
  - 3. Finish coat shall be factory-applied color-pigmented architectural finish. Apply finish coating in a controlled environment meeting applicable environmental regulations and as recommended by the finish coating manufacturer.
  - 4. Coatings shall be certified OTC/VOC compliant and conform to applicable regulations and EPA standards.
  - 5. Provide single-source responsibility for galvanizing, priming and finish coating.

6. Galvanizer shall certify that performance will be met without blast cleaning and coating will be applied within 12 hours of galvanizing at the galvanizer's plant or if blasted, galvanizer shall certify that rugosity standards are met.
7. Primer shall meet or exceed the following performance criteria:
  - a. Abrasion Resistance: ASTM D 4060 (CS17 Wheel, 1,000 grams load) 1 kg load, 200 mg loss.
  - b. Adhesion: ASTM D 4541, 1050 psi.
  - c. Corrosion Weathering: ASTM D 5894, 13 cycles, 4,368 hours, 10 per ASTM D 714 for blistering; 7 per ASTM D 610 for rusting.
  - d. Direct Impact Resistance: ASTM D 2794, 160 in. lbs.
  - e. Flexibility: ASTM D 522, 180 degrees bend, 1 inch mandrel, Passes.
  - f. Pencil Hardness: ASTM D 3363, 3H.
  - g. Moisture Condensation Resistance: ASTM D 4585, 100 degrees F, 2000 hours, Passes no cracking or delamination.
  - h. Dry Heat Resistance: ASTM D 2485, 250 degrees F.
  - i. Accelerated Weathering: QUV- ASTM D 4587 QUV A 5000 Hours: Passes.
  - j. Salt Fog Resistance: ASTM B 117, 5,600 hours No cracking or blisters.
8. Topcoat shall meet or exceed the following performance criteria:
  - a. Abrasion Resistance: ASTM D 4060, CS17 Wheel, 1,000 cycles 1 kg load, 87.1 mg loss.
  - b. Adhesion: ASTM D 4541, 1050 psi.
  - c. Direct Impact Resistance: ASTM D 2794, greater than 28 in. pounds.
  - d. Dry Heat Resistance: ASTM D 2485, 200 degrees F (93 C).
  - e. Salt Fog Resistance: ASTM B 117 9,000 hours, Rating 10 per ASTM D 714 for blistering, Rating 9 per ASTM D 610 for rusting.
  - f. Flexibility: ASTM D522, 180 degrees bend, 1/8 inch mandrel, Passes.
  - g. Pencil Hardness: ASTM D 3363, F.
  - h. Moisture Condensation Resistance: ASTM D 4585, 100 degrees F, 1000 hours, No blistering or delamination.
  - i. Xenon Arc Test: ASTM D 4798, Pass 200 hours.
  - j. Corrosion Weathering: ASTM D 5894, 21 Cycles, 7056 Hours: Rating 10 per ASTM D714 for blistering. Rating 9 Per ASTM D 610 for Rusting.
  - k. Thermal Shock: ASTM D 2246, 15 cycles, Excellent.
9. Topcoat shall exhibit a rugosity (smoothness) 4 rug or less (16-20 microns of variation) when measured by a profilometer over a 1 inch straight line on the surface of elements that are less than 24 pounds per running foot. Profilometer shall be capable of operating in 1 micron increments.
10. Warranty: Provide coater's standard warranty that materials will be free from 10 percent or more visible rust for 20 years.

## 2.04 FASTENERS

- A. General: provide all fasteners and attachments as required for work specified herein and as indicated on the drawings.
  1. In General for bolted connections for work of this section to concrete and masonry surfaces:
    - a. Provide all fasteners and attachments of the same material and finish as the metal to which it is applied unless otherwise noted.
      - 1.) Hilti-Hit-V M12X110 anchor rods with Hilti-HY 150 max injectable mortar.
      - 2.) Simpson Strong-Tie – AT-XP anchoring adhesive with ½” galvanized, threaded rod, washers and nuts.
      - 3.) Red Heat Adhesive Anchoring Specialist, EPCON C6 Epoxy with ½” galvanized, threaded rod, washers and nuts.
      - 4.) Or equal.
- B. Steel Bolts, Nuts and Washers: ASTM A307, galvanized to ASTM A153 for galvanized components.
- C. Plain Washers: Round, ASME B18.22.1
- D. Lock Washers: Helical, spring type, ASME B18.21.1

## 2.05 ACCESSORIES

- A. Anchoring Cement shall be:
  1. Hallemite “Por-Rok” by lean & Fink, Montvale, NJ
  2. Speed-E-Roc by W.R. Meadows, York, PA
  3. Quikrete anchoring cement by Quikrete Companies, Atlanta, GA

4. Or equal

- B. Metal paste filler: 2 component epoxy, high strength, structural adhesive putty:
  - 1. Products which may be considered as equal include the following, or approved equal:
    - a. Abatron, Inc., Gilberts, IL, Product: "Ferrobond-P"
    - b. Dynatron/Bondo Corp., Atlanta, GA, Product: "Bondo Plastic Filler"
    - c. U.S. Chemical & Plastics Company, Massillon, OH, Product: "Metal filled epoxy"
- C. Liquid zinc coating and finish coating, for touch-up of welds, scratches and abrasions in galvanized steel: As recommended by Coatings manufacturer.

2.06 FINISHES – SHOP APPLIED COATINGS

- A. Apply factory finish per approved manufacturer's coating process.

PART 3 - EXECUTION

3.01 ERECTION - GENERAL

- A. General: Accurately set all work to established lines and elevations, and rigidly fasten in place with suitable attachments to the construction of the substrates. At the completion of the work, check all work, re-adjust as required, and leave in perfect condition.

3.02 FIELD WELDING

- A. Field Weld components indicated on approved shop drawings in accordance with AWS D1.1.
- B. Immediately after welding, touch-up welds, burned areas and damages surface coatings.
  - 1. Thoroughly remove all spatter by power wire-brushing (or if inaccessible, wire brushing) per SSPC, surface preparation specification SP2 or SP3. Allow surface to cool to ambient temperature. Clean surface with solvent wipe to remove oils, grease and dirt in accordance with SSPC surface preparation specification SP1.
  - 2. Apply one coat of liquid zinc to attain a minimum of 1.5 mils dry film thickness. Coating should extend at least two inches beyond either side of weldment to ensure complete coverage of welded area.
  - 3. Apply coating manufacturer's finish coating per their recommendations.

3.03 FIELD BOLTING

- A. Accurately drive all bolts into holes, protecting the bolt heads so as not to damage the thread during the driving. Ensure that bolt heads and nuts rest squarely against the metal. Where structural members have sloping flange faces, provide approved beveled washers at the bolted connections to afford square seating for bolt heads or nuts. Nick bolt threads for unfinished bolts to prevent the nuts from backing off. Cut off excess threaded rods and hammer and file to a smooth finish. Apply field galvanizing touch-up.

3.04 TOUCH-UP

- A. Touch up all welds, burned areas, scratches, abrasions, on galvanized metals, using specified liquid zinc coating.
- B. Touch up all welds, scratches, abrasions, and other surface damaged on shop-primed or painted metals, using the same coatings as specified under shop applied finishes, herein above.

3.05 CORING

- A. Coring shall be performed as part of the work of this section. Coordinate, measure and align cores with other trades for all hand and guard rail posts. Coordinate size of cores with anchoring cement thickness recommendations and maintain a minimum distance of two inches from edge of slab to edge of core.

**END OF SECTION**

## SECTION 33 00 00

### SITE PREPARATION AND SITE WORK

#### PART 1 - GENERAL

##### 1.01 GENERAL CONDITIONS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.
- D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon
- E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

##### 1.02 WORK TO BE PERFORMED

- A. The work of this Section consists of all Site preparation work, earthwork, site-work and landscaping work as shown on the Drawings and as specified herein, and includes, but is not limited to, the following:
  - 1. Temporary construction fencing
  - 2. Erosion controls
  - 3. Demolition of existing site-work
  - 4. Modular retaining walls
  - 5. Earthwork
  - 6. Storm line cleaning
  - 7. Storm Drain piping and grates
  - 8. Bollards
  - 9. Pavement striping
  - 10. Signage
  - 11. Landscaping

##### 1.03 SUBMITTALS

- A. The Contractor shall provide the following samples and/or submittals for approval. Do not order materials until approval of samples, certifications or test results has been obtained.
  - 1. Product Data for each product to be furnished as part of the work of this section.
  - 2. Project site utilization plan to show fencing, laydown area, temporary signage, site access, concrete washout collection methods.
  - 3. Engineered shop drawings for modular retaining walls. Shop drawings shall bear the stamp of a professional civil engineer (P.E.) experienced in modular retaining wall design licensed in the state of Massachusetts.

##### 1.04 REFERENCE STANDARDS

- A. The following standards are applicable to the work of this Section to the extent referenced herein:
  - 1. "Massachusetts Erosion and Sedimentation Control Guidelines for Urban and Suburban Areas, A Guide for Planners, Designers and Municipal Officials", prepared by the Massachusetts Department of Environmental Protection, Bureau of Resource Protection, dated March 1997, reprinted May 2003.
  - 2. **ASTM C 140** - Sampling and Testing Concrete Masonry Units
  - 3. **ASTM C 1372** – Standard Specification for Dry-Cast Segmental Retaining Wall Units
  - 4. **ASTM D 4595** – Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
  - 5. **ASTM D 5262** – Standard Test Method for Evaluating the Unconfined Tension Creep and Creep Rupture Behavior of Geosynthetics

6. **ASTM D 5321** – Standard Test Method For Determining the Coefficient of Soil and Geosynthetic or Geosynthetic and Geosynthetic by Direct Shear Method
7. **ASTM D 5818** - Standard Practice for Exposure and Retrieval of Samples to Evaluate Installation Damage of Geosynthetics
8. **ASTM D 6706** – Standard Test Method for Measuring Geosynthetic Pullout Resistance in Soil
9. **ASTM D 698** – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort
10. **ASTM D 2487** – Standard Practice for Classification of Soils for Engineering Purposes
11. **ASTM D 422** – Standard Test Method for Particle-Size Analysis of Soils
12. **ASTM D 4318** – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils
13. **ASTM G 51** – Standard Test Method for Measuring pH of Soil for Use in Corrosion Testing
14. **ASTM F 758**– Standard Specification for Smooth-Wall Polyvinyl Chloride (PVC) Plastic Underdrain Systems for Highway, Airport or Similar Drainage
15. **ASTM F 405** – Standard Specification for Corrugated Polyethylene (PE) Pipe and Fittings
16. “NCMA Design Manual for Segmental Retaining Walls,” Third Edition
17. Where specifications and reference documents conflict, the Wall Design Engineer shall make the final determination of applicable document.

#### 1.05 EXAMINATION OF SITE AND DOCUMENTS

- A. It is hereby understood that the Contractor has carefully examined the site and all conditions affecting work under this Section. No claim for additional costs will be allowed because of a lack of knowledge of existing conditions as indicated in the Contract Documents, or obvious from observation of the site.
- B. Plans, surveys, measurements and dimensions under which the work is to be performed are believed to be correct, but the Contractor shall have examined them for himself during the bidding period and formed his own conclusions as to the full requirements of the work involved.

#### 1.06 PERMITS, CODES AND REGULATIONS

- A. Comply with all rules, regulations, laws and ordinances of the City and State, and all other authorities having jurisdiction over the project site. All labor, materials, equipment and services necessary to make the work comply with such requirements shall be provided by the Contractor without additional cost to the Owner.

#### 1.07 TESTING, CONTROL AND INSPECTION

- A. The Owner shall retain the services of a qualified independent testing agency, for the following testing and inspections.
  1. Soil mechanical analysis and proctor density testing of material provided under this section.
  2. Sieve analysis of earthwork materials to be provided under this section.
  3. Soil compaction testing
- B. Cooperate fully with the testing agency's work in taking and storing samples. Provide soil samples required for proctor and sieve analysis.
- C. Accept as final results of tests made by the qualified professional testing organization engaged by the Owner.
- D. Testing required because of changes requested by the Contractor in materials, sources of materials, or mix proportions; and extra testing of concrete or materials because of failure to meet the Specification requirements are to be paid for by the Contractor.
- E. Advise the Testing Agency of intent to compact material by notification at least 48 hours prior to time of placement.
- F. All materials, measuring, mixing, transportation, placing and curing shall be subject to inspection by the Architect or by the Testing Agency. However, such inspection, wherever conducted, shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with Contract requirements, nor shall inspector's acceptance of material or workmanship prevent later rejection of same by the Owner or Architect if defects are discovered.

#### 1.08 QUALIFICATIONS

- A. Prior experience – Contractor shall have at least 5 years of flatwork and vertical concrete experience and provide a list of similar projects over the last 5 years with contact person and phone number.



## PART 2 – MATERIALS

### 2.01 SITE PREPARATION

- A. Temporary Construction Fencing – Shall be 6' Chain link fencing panels supported by concrete pole bases. Fencing shall be fastened together to form a continuous barrier between the worksite and other areas. Fencing shall have a high quality polyethylene (HDPE) privacy fence screen fabric equal to the Fence Screen Privacy Air – 295 Series. Provide all accessories required by the manufacturer for securing the fabric to the fence. Provide temporary barricade and signage on the inside of school entry doors during work.
- B. Erosion Controls –
2. Sediment controls bags – Shall be a geotextile fabric unit with lifting straps to allow removal of the unit and manual inspection of the stormwater system. Bag shall be Dandy Sack or equal with the following characteristics:

PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Grab Tensile Strength	ASTM D 4632	lbs	450 x 300
Grab Tensile Elongation	ASTM D 4632	%	40 x 25
Puncture Strength	ASTM D 4833	lbs	130
Mullen Burst Strength	ASTM D 3786	psi	600
Trapezoid Tear Strength	ASTM D 4533	lbs	165 x 150
% Open Area (POA)	COE - 22125-86	%	28
Apparent Opening Size	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec <sup>1</sup>	3.5
Permeability	ASTM 4491	cm/sec	0.25
Water Flow Rate	ASTM 4491	gal/min/ft <sup>2</sup>	250
Ultraviolet Resistance	ASTM D 4355	%	70
Color			Orange <sup>1</sup>

3. Erosion Control Socks – shall be wood chip or compost filled filter socks. Compost shall be clean material free of seed. Sock fabric shall be a standard duty permeable material equal to Silt Sock by Erosion Control products.

- C. Tree Protection – Provide HDPE pipe around trunk and wooden bean poles as indicated on the drawings.

### 2.02 DEMOLITION – SEE PART 3 OF SPECIFICATION

### 2.03 MODULAR RETAINING WALLS

- A. Modular Wall Units: Shall be machine formed, Portland cement concrete blocks specifically designed for retaining wall applications. Units shall be solid through full depth of the unit. Units currently approved for this project are:
1. VERSA-LOK - standard retaining wall and cap units
  2. Keystone Retaining Wall System – standard wall and cap units.
  3. Mesa-Adobe System by Tensar International Corporation – Standard adobe units and caps
  4. Or Equal.

Units shall be capable of being erected with the horizontal gap between adjacent units not exceeding 1/8 inch and shall be interlocked with connecting pins that provide 3/4-inch setback from unit below (yielding a 7-degree cant from vertical). Units shall be sound and free of cracks or other defects that would interfere with the proper placing of the unit or significantly impair the strength or permanence of the structure. Any cracks or chips observed during construction shall fall within the guidelines outlined in ASTM C 1372. Concrete SRW units shall conform to the requirements of ASTM 1372 and have a minimum net average 28 days compressive strength of 3000 psi. Compressive strength test specimens shall conform to the saw-cut coupon provisions of ASTM C140. SRW units' molded dimensions shall not differ more than  $\pm 1/8$  inch from that specified, as measured in accordance with ASTM C 140. This tolerance does not apply to architectural surfaces, such as split faces.

B. Modular Retaining Wall Unit Connection Pins

1. SRW units shall be interlocked with VERSA-Tuff connection pins. The pins shall consist of glass-reinforced nylon made for the expressed use with the modular units supplied.

C. Geosynthetic Reinforcement

1. Geosynthetic reinforcement shall consist of high-tenacity PET geogrids, HDPE geogrids, or geotextiles manufactured for soil reinforcement applications. The type, strength and placement of the geosynthetic reinforcement shall be determined by procedures outlined in this specification and the NCMA Design Manual for Segmental Retaining Walls (3<sup>rd</sup> Edition 2009) and materials shall be specified by Wall Design Engineer in their final wall plans and specifications. The manufacturers/suppliers of the geosynthetic reinforcement shall have demonstrated construction of similar size and types of segmental retaining walls on previous projects.
2. The type, strength and placement of the reinforcing geosynthetic shall be as determined by the Wall Design Engineer, as shown on the final, P.E.-stamped retaining wall plans.

D. Leveling Pad

1. Material to level foundations shall be a lean concrete poured over existing foundations to provide a level substrate. Concrete shall be a lean concrete with a strength of 200-300 psi up to a 3" depth. If greater depth is required the Contractor shall form a level foundation wall surface with concrete per the concrete specification section requirements.

2.04 EARTHWORK

- A. Gravel Barrow Base: Base course under walks and stairs shall be hard, durable particles from sources approved by the architect, free from organic matter and clay, and conforming to the following gradation requirements of MHD standard M1.03.0, type B.

<u>Sieve Size</u>	<u>% finer by weight</u>
3 inch	100
1 ½ inch	70-100
¾ inch	50-85
No. 4	30-60
No. 200	0-10

- B. Crushed Stone: Where designated on the drawings and around all drainage pipes crushed stone shall be an angular, clean ¾" stone and shall conform to the following gradation requirements of MHD standard M2.04.4.

<u>Sieve Size</u>	<u>% finer by weight</u>
1 inch	100
¾ inch	90-100
½ inch	10-50
3/8 inch	0-20
No.4	0-5

2.05 STORM LINE AND MAN HOLE CLEANING - SEE PART 3 OF SPECIFICATION

2.06 STORM DRAIN PIPING AND GRATES

- A. Retaining wall Drain Pipe System – Corrugated polyethylene drain pipe and "T" transitions, reducer couplings and PVC pipe. Filter fabric.
1. National Pipe & Plastic, Inc.
  2. ADS
  3. Charlotte Pipe
- B. Drain covers: provide new cast metal grates as indicated on the plans
1. Standard bar grate shall be size to fit into the existing receiver. Grate shall be a cast metal grate equal the catch basin grate by US Foundry

2. Atrium/dome grates shall consist of metal grate and receiver with pipe adapter to connect to existing drain pipe. An integral or stand alone metal “screen shall be provided to prevent landscaping materials from clogging the grate. Products shall be:
  - a. Ductile iron dome grate and adapter by Nyloplast
  - b. Atrium grate and adapter by NDS
  - c. or equal.

## 2.07 BOLLARDS

- A. Bollards shall be a galvanized, structural round tube in diameters indicated on the drawings. They shall be installed as part of the work of this section, but filled with concrete per the Concrete specification requirements.
- B. Bollard covers: Shall be an 1/8” thick HDPE protective sleeve that fits securely over the bollards. Covers shall be UV stable and have 2 reflective stripes near the top.

## 2.08 PAVEMENT STRIPING

- A. High Contract parking paint: Shall be fast drying yellow traffic paint as specified in the Massachusetts Highway Department (MHD) “Standard Specifications” for Highway s and bridges, latest Edition with amendments under sections M7.01.10 and M7.01.11.

## 2.09 SIGNAGE

- A. HC Accessible Parking signs – Aluminum sheet, with blue background and white lettering and symbols for each handicap parking spot. Provide one van accessible companion sign. Signage to be equal to Brady Worldwide Inc. parking signs.
- B. Temporary Construction Signage – Provide Custom signage with text indicated on drawings mounted to temporary fencing. Signs may be plastic or metal, but need to be legible for the entire duration of the Work.

## 2.10 LANDSCAPING

- A. Hydroseeding
  1. Composition and quality: Seed shall be a mix of 40% Perennial Ryegrass, 30% Chewings Fescue, 30% Kentucky Bluegrass. Each seed bag shall be delivered to the site sealed and clearly marked as to species, purity, percent germination, dealer’s guarantee, and dates of test.
  2. Mulch: shall be composed of cellulose or wood fiber products with no growth or germination inhibiting substances, and shall be manufactured in such a manner that when thoroughly mixed with seed, fertilizer, organic stabilizer, and water, in the proportions specified, will form homogeneous slurry which is capable of being sprayed to form a porous mat. The fibrous mulch in its air-dry state shall contain no more than 15% by weight of water. The fiber shall have a temporary green dye and shall be accompanied by a certificate of compliance stating that the fiber conforms to these specifications.
  3. Organic Stabilizer/Tackifier: Shall be an organic substance supplied in powder form and shall be psilium-based and packed in clearly marked bags stating the contents of each package.
  4. Equipment used for application of slurry shall be a commercial-type Hydro-Seeder and have a built-in agitation system with an operation capacity sufficient to agitate, suspend and homogeneously mix slurry. Tank capacity shall be a minimum of 1,500 gallons and shall be mounted on a truck to allow access to the site. Distribution Lines: Large enough to prevent stoppage and allow for even distribution of slurry over the site. Pump: Shall be able to generate 150 psi at the nozzle.
- B. Mulch & Weed Block
  1. Weed block shall be polypropylene fabric scrim and caps with all anchor pins and accessories recommended by the manufacturer. Weedblock shall be Dewitt Company Pro5 or equal
  2. Bark mulch: shall be cedar mulch



## PART 3 – EXECUTION

### 3.01 EROSION CONTROLS

- A. The Contractor shall provide suitable and adequate means of sedimentation and erosion control during construction. Control measures shall prevent all erosion, siltation and sedimentation of waterways, drainage systems, construction areas, adjacent areas and off-site areas. Work shall be accomplished on and/or adjacent to the following work areas:
  - 1. Earthwork stockpiles and on-site storage and staging areas.
  - 2. Cut and fill slopes and other stripped and exposed graded areas.
  - 3. Constructed and existing swales and ditches.
  - 4. Unestablished lawns and seeded embankments.
- B. Means of protection as noted on the Contract Drawings indicate the minimum provisions necessary. Additional means of protection shall be provided by the Contractor as required for continued or unforeseen erosion problems, at no additional expense to the Owner.
- C. Periodic maintenance of all sediment control installations shall be provided to ensure intended purposes are accomplished. Sediment control measures shall be in working condition at the end of each day.
- D. After any significant rainfall, sediment control devices shall be inspected for integrity. Any damaged device shall be corrected immediately.
- E. Inspect drainage structures periodically. Remove sediment accumulation and regrade or replace materials as required.
- F. Once the site has been fully stabilized against erosion, and with the approval of the Owner's Representative remove sediment control devices and all accumulated silt. Dispose of silt and waste materials offsite. Regrade all areas disturbed during this process and stabilize against erosion with surfacing materials as indicated.
- G. The Contractor shall keep street clean through-out project.

### 3.02 DEMOLITION

- A. Protection: Provide, erect and maintain all fences, planking, bracing, shoring, lights, barricades, partitions, warning signs and guards as necessary for the protection of the existing building, the contents of the building, students, staff and the general public.
- B. Fire Watch: Provide and pay for a fire watch when required by the local authorities, and provide fire protection materials and equipment at all times in the areas where demolition work is being performed and where "hot" work such as cutting and burning is taking place.
- C. Security: Work locations must be closed to the public. Security procedures must be established so that only authorized personnel can enter the demolition areas. Emergency exits shall be maintained, or alternate exits provided.
- D. Methods: Perform the work carefully to prevent damage to existing construction to remain. Any damage to existing structure cause by the Contractor's operations shall be repaired and made good by the Contractor promptly, and without cost to the owner.
- E. Use of Explosives: No blasting shall be done on the project.
- F. Removal: Remove from the premises all work demolished except as otherwise specified, immediately after demolition, unless otherwise directed. There will be no on-site burning of any material whatsoever throughout the duration of this contract.
- G. Disposal: Remove and dispose of off-site all materials and equipment. Materials to be removed shall become the property of the Contractor, and together with all debris, shall be removed from the site at no additional cost to the owner. All dumping and disposal shall be carried out in strict adherence to the regulations of the Commonwealth of Massachusetts and the local municipal jurisdiction under which the disposal area is regulated. In addition, the following regulations will be adhered to:
  - 1. All trucks carrying debris from the demolition operations shall, at all times, be covered to prevent dispersal of load or dust on the streets.
  - 2. The Contractor will be required to remove from the streets any demolition debris falling from trucks.

3. Under no circumstances will burning be permitted at the demolition site.

### 3.03 MODULAR RETAINING WALLS

#### A. Excavation

1. Contractor shall excavate to the lines and grades shown on the project grading plans. Contractor shall take precautions to minimize over-excavation. Over-excavation shall be filled with compacted infill material, or as directed by the Wall Design Engineer, at the Contractor's expense.
2. Contractor shall verify location of existing structures and utilities prior to excavation. Contractor shall ensure all surrounding structures are protected from the effects of wall excavation. Excavation support, if required, is the responsibility of the Contractor.

#### B. Foundation Preparation

1. Following the excavation, the existing foundations shall be saw cut to a level plane suitable for the new modular retaining wall base.

#### C. Modular Unit Retaining Wall Installation

1. All modular units shall be installed at the proper elevation and orientation as shown on the final, P.E.-sealed wall plans and details or as directed by the Wall Design Engineer. The units shall be installed in general accordance with the manufacturer's recommendations. The specifications and drawings shall govern in any conflict between the two requirements.
2. First course of SRW units shall be placed on the foundation. The units shall be leveled side-to-side, front-to-rear and with adjacent units, and aligned to ensure intimate contact with the foundation. The first course is the most important to ensure accurate and acceptable results. No gaps shall be left between the front of adjacent units. Alignment may be done by means of a string line or offset from base line to the back of the units.
3. All excess debris shall be cleaned from top of units and the next course of units installed on top of the units below.
4. Two connection pins shall be inserted through the pin holes of each upper-course unit into receiving slots in lower-course units. Pins shall be fully seated in the pin slot below. Units shall be pushed forward to remove any looseness in the unit-to-unit connection.
5. Prior to placement of next course, the level and alignment of the units shall be checked and corrected where needed.
6. Layout of curves and corners shall be installed in accordance with the wall plan details or in general accordance with SRW manufacturer's installation guidelines. Walls meeting at corners shall be interlocked by overlapping successive courses.
7. Procedures C. through F. shall be repeated until reaching top of wall units, just below the height of the cap units. Geosynthetic reinforcement, drainage materials, and reinforced backfill shall be placed in sequence with unit installation as described in Section 4.06, 4.07 and 4.08.

#### D. Geosynthetic Reinforcement Placement

1. All geosynthetic reinforcement shall be installed at the proper elevation and orientation as shown on the final P.E.-sealed retaining wall plan profiles and details, or as directed by the Wall Design Engineer.
2. At the elevations shown on the final plans, (after the units, drainage material and backfill have been placed to this elevation) the geosynthetic reinforcement shall be laid horizontally on compacted infill and on top of the concrete SRW units, to within 1 inch of the front face of the unit below. Embedment of the geosynthetic in the SRW units shall be consistent with SRW manufacturer's recommendations. Correct orientation of the geosynthetic reinforcement shall be verified by the Contractor to be in accordance with the geosynthetic manufacturer's recommendations. The highest-strength direction of the geosynthetic must be perpendicular to the wall face.

3. Geosynthetic reinforcement layers shall be one continuous piece for their entire embedment length. Splicing of the geosynthetic in the design-strength direction (perpendicular to the wall face) shall not be permitted. Along the length of the wall, horizontally adjacent sections of geosynthetic reinforcement shall be butted in a manner to assure 100% coverage parallel to the wall face.
4. Tracked construction equipment shall not be operated directly on the geosynthetic reinforcement. A minimum of 6 inches of backfill is required prior to operation of tracked vehicles over the geosynthetic. Turning should be kept to a minimum. Rubber-tired equipment may pass over the geosynthetic reinforcement at slow speeds (less than 5 mph).
5. The geosynthetic reinforcement shall be free of wrinkles prior to placement of soil fill. The nominal tension shall be applied to the reinforcement and secured in place with staples, stakes or by hand tensioning until reinforcement is covered by 6 inches of fill.

#### E. Drainage Aggregate and Drainage Material Placement

1. Drainage aggregate shall be installed to the line, grades and sections shown on the final P.E.-sealed retaining wall plans. Drainage aggregate shall be placed to the minimum thickness shown on the construction plans between and behind units (a minimum of 1 cubic foot for each exposed square foot of wall face unless otherwise noted on the final wall plans).
2. Drainage collection pipes shall be installed to maintain gravity flow of water outside the reinforced-soil zone. The drainage collection pipe shall be installed at the locations shown on the final construction drawings. The drainage collection pipe shall daylight into a storm sewer or along a slope, at an elevation below the lowest point of the pipe within the aggregate drain. Drainage laterals shall be spaced at a maximum 50-foot spacing along the wall face.

#### F. Backfill Placement

1. The reinforced backfill shall be placed as shown in the final wall plans in the maximum compacted lift thickness of 8 inches and shall be compacted to a minimum of 95% of standard Proctor density (ASTM D 698) at a moisture content within -1% point to +3% points of optimum. The backfill shall be placed and spread in such a manner as to eliminate wrinkles or movement of the geosynthetic reinforcement and the SRW units.
2. Only hand-operated compaction equipment shall be allowed within 3 feet of the back of the wall units. Compaction within the 3 feet behind the wall units shall be achieved by at least three passes of a lightweight mechanical tamper, plate, or roller.
3. At the end of each day's operation, the Contractor shall slope the last level of backfill away from the wall facing and reinforced backfill to direct water runoff away from the wall face.
4. At completion of wall construction, backfill shall be placed level with final top of wall elevation. If final grading, paving, landscaping and/or storm drainage installation adjacent to the wall is not placed immediately after wall completion, temporary grading and drainage shall be provided to ensure water runoff is not directed at the wall nor allowed to collect or pond behind the wall until final construction adjacent to the wall is completed.

#### G. Caps

1. All modular unit caps shall be properly aligned and glued to underlying units with approved adhesive, a flexible, high-strength concrete adhesive. Rigid adhesive or mortar are not acceptable.
2. Caps shall overhang the top course of units by 3/4 inch to 1 inch. Slight variation in overhang is allowed to correct alignment at the top of the wall.

#### H. Construction Adjacent to Completed Wall

1. The Owner or Owner's Representative is responsible for ensuring that construction by others adjacent to the wall does not disturb the wall or place temporary construction loads on the wall that exceed design loads, including loads such as water pressure, temporary grades, or equipment loading. Heavy paving or grading equipment shall be kept a minimum of 3 feet behind the back of the wall face. Equipment with wheel loads in excess of 150 psf live load shall not be operated within 10 feet of the face of the retaining wall during construction adjacent to the

wall. Care should be taken by the General Contractor to ensure water runoff is directed away from the wall structure until final grading and surface drainage collection systems are completed.

### 3.04 EARTHWORK

#### A. GENERAL REQUIREMENTS

1. The Contract Drawings indicate the proposed finish alignment, elevation, and grade of the work. Establish the line and grade in close conformity with the Contract Drawings. The Owner's representative, however, may make minor adjustments in the field as necessary due to conditions encountered.
2. The Contractor is responsible for establishing construction phasing, means, and methods and interim grading and temporary conditions required to attain the finish product required by the Contract Documents. The Contractor is responsible for all construction, protection, movement, and maintenance of stockpiles. Establish and maintain suitable benchmarks and grade control to accurately perform the work.
3. All excavation shall be performed in the dry. Excavation and dewatering shall be accomplished by methods, which preserve the undisturbed state of the subgrade soils.
4. No excavation will be permitted below a line drawn downwards at two horizontal to one vertical from the underside of the closest edge of any in-place footing or utility at a higher elevation without providing adequate sheeting and bracing to prevent movement of the in-place footing or utility.
5. When excavations have reached the prescribed depths, the condition of the bottom of the trench or hole shall be inspected by the Owner's Representative. After inspection the Contractor will receive approval to proceed if conditions meet project requirements.
6. No excavation shall be deposited or stockpiled at any time to endanger portions of new or existing structures, either by direct pressure or indirectly by overloading banks contiguous to the operation. Material, if stockpiled, shall be stored so as not to interfere with the established sequence of the construction. If there is not sufficient area available for stockpiling within the limits of the project, the Contractor will be required to furnish his own area for stockpiling.
7. When the plans require excavation in areas in close proximity to existing buildings, roads, structures and utilities it shall be the responsibility of the Contractor at his expense to use satisfactory means and methods to protect and maintain the stability of such roads, and structures located immediately adjacent to but outside the limits of excavations.
8. Temporary ditches shall be made as needed to drain off surface water to avoid damaged to areas of cut or fill. Such ditches shall be maintained as required for efficient operations, at no additional cost to the Owner.
9. Provide shoring, sheeting, and/or bracing at excavations, as required, to assure complete safety against collapse of earth at the side of excavations. Provide shoring of public utility lines where exposed in the excavations in accordance with rules and regulations of the local authorities, as no additional cost to the Owner.

#### B. FILLING AND BACKFILLING

1. Subgrade Preparation: The subgrade shall be shaped to line, grade, and cross-section, and be thoroughly compacted in accordance with the requirements of paragraph 3.03. This operation shall include any required reshaping and wetting to obtain proper compaction. All soft or otherwise unsuitable material shall be removed and replaced with suitable material from excavation or borrow. The resulting area, and all other low sections, holes, or depressions shall be brought to the required grade with accepted material and the entire subgrade shaped to line, grade and cross-section and thoroughly compacted.
  - a. Before surface or base materials are spread, the subgrade shall be shaped to an accurate and true surface conforming to the line and grades indicated on the Contract Drawings. All surface irregularities shall be filled with suitable material or removed and such areas recompact until the surface is properly shaped and properly compacted. A tolerance of 3/8-inch in paved areas and 1/2-inch in non-paved areas above or below the finished subgrade elevation will be allowed provided that this dimension above or below grade is not maintained for a distance longer than 50-feet and that the required crown is maintained in the subgrade. Any portion, which is not accessible to a roller, shall be thoroughly compacted by other mechanical or manual methods.

- b. All fills shall be placed in horizontal layers. Fill shall not be placed following the natural contours of the ground. Fill shall be placed starting in the lowest areas working up to finish grades in horizontal layers in the manner specified herein. Each layer of fill shall be benched into the existing slope in order to avoid the formation of a shear plane.
2. Backfill Material: Unless otherwise specified or directed, material used for filling and backfilling shall meet the material requirements specified herein. In general, the material used for backfilling utility trench excavations shall be material removed from the excavations provided that the reuse of these materials result in the required trench compaction and meets the requirements specified for ordinary borrow. All backfill placed within the building limits shall be gravel borrow unless otherwise specified. In areas where the bottom of the excavation is in fine sand and silt, and is below the groundwater table, the first lift of backfill shall be 12-inches of compacted sand and gravel to provide a working mat and drainage layer. Place backfill to a maximum loose lift thickness of 12-inches. Maintain backfill material with a uniform moisture content, with no visible wet or dry streaking, between plus two percent and minus three percent of optimum moisture content. The final filled soil mass shall be as uniform as possible in lift thickness, moisture content, and effort required to compact soil mass.
3. Backfilling Against Structures:
  - a. Backfilling against masonry or concrete shall not be done until permitted by the Owner's Representative. The Contractor shall not place backfill against or on structures until they have attained sufficient strength to support the loads (including construction loads) to which they will be subjected, without distortion, cracking or other damage. As soon as practicable after the structures are structurally adequate and other necessary work has been satisfactorily completed and approved, special leakage tests of the structures shall be made by the Contractor, as required by the Owner's Representative. After the satisfactory completion of leakage tests and the satisfactory completion of any other required work in connection with the structures, the backfilling around the structures shall proceed using suitable and approved excavation material. The best of the backfill material shall be used for backfilling within two feet of the structure. Just prior to placing backfill, the areas shall be cleaned of all excess construction material and debris and the bottom of excavations shall be in a thoroughly compacted condition.
  - b. Symmetrical backfill loading shall be maintained. Special care shall be taken to prevent any wedging action or eccentric loading upon or against the structures. During backfilling operations, care shall be exercised that the equipment used will not overload the structures in passing over and compacting these fills. Except as otherwise specified or directed, backfill shall be placed in layers not more than 12-inches in loose depth and each layer of backfill shall be compacted thoroughly and evenly using approved types of mechanical equipment. Each pass of the equipment shall cover the entire area of each layer of backfill.
  - c. In compacting and other operations, the Contractor shall conduct his operations in a manner to prevent damage to structures due to passage of heavy equipment over, or adjacent to, structures, and any damage thereto shall be made good by the Contractor at no additional expense to the Owner.
4. After backfilling trenches and excavations, the Contractor shall maintain the surfaces of backfill areas in good condition so as to present a smooth surface at all times level with adjacent surfaces. Any subsequent settling over backfilled areas shall be repaired by the Contractor immediately, and such maintenance shall be provided by the Contractor for the life of this Contract, at no additional expense to the Owner.
5. The completed and approved subgrades upon which topsoil is to be placed, or pavements are to be installed, shall not be disturbed by traffic of other operations and shall be maintained in a satisfactory condition until the base and finished courses are placed. The storage or stockpiling of materials on finished subgrade will not be permitted.
6. Uniformly shape the surfaces of all areas to be graded, to the lines and grades indicated on the Contract Drawings, and as directed, including excavated and filled sections, embankments and adjacent transition areas, and all areas disturbed as a result of the Contractor's operations. The finished surfaces shall be reasonably smooth, compacted and free from surface irregularities.
7. The Contractor is responsible to provide the finish grades as shown on the Contract Drawings. The Contractor shall provide temporary erosion control throughout the construction period to maintain all constructed lawns, and to protect all existing drains, catch basins, swales, from any debris or soil entering from excavation, backfill, or erosion. Contractor shall take whatever precautions are necessary to accomplish this temporary erosion control such as haybales, silt fence, erosion control fabric, or pumping, at no additional cost to the Owner.

## C. COMPACTION

1. **Compaction Requirements:** The degree of compaction is expressed as a percentage of the maximum dry density of the material at optimum moisture content as determined by ASTM Test D1557, Method C. The compaction requirements are as follows:

Area	ASTM Density Degree of Compaction (Percent)
Below footings	95
Below slabs	95
Pavement base course	95
Pavement subgrade	95
General fill below pavement subbase	95
All other areas	90

2. **Moisture Control:**
  - a. Fill that is too wet for proper compaction shall be disced, harrowed, or otherwise dried to a proper moisture content to allow compaction to the required density. If fill cannot be dried within 24 hours of placement, it shall be removed and replaced with drier fill.
  - b. Fill that is too dry for proper compaction shall receive water uniformly applied over the surface of the loose layer. Sufficient water shall be added to allow compaction to the required density.
3. **Unfavorable Conditions:**
  - a. In no case shall fill be placed over material that is frozen. No fill material shall be placed, spread or rolled during unfavorable weather conditions. When work is interrupted by heavy rains, fill operations shall not be resumed until the moisture content and the density of the previously placed fill are as specified.
  - b. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of the day's operations. Prior to terminating work for the day, the final layer of compacted fill shall be rolled with a smooth wheeled roller to eliminate ridges of soil left by compaction equipment.
4. **Compaction Control:**
  - a. In-place density tests shall be made in accordance with ASTM D1556, D2922, or D2167 as the work progresses, to determine the degree of compaction being attained by the Contractor. Any corrective work required as a result of such tests, such as additional compaction, or a decrease in the thickness of layers, shall be performed by the Contractor at no additional expense to the Owner. In-place density testing shall be made at the Contractor's expense by the geotechnical testing laboratory.
  - b. In-place density tests shall be performed at a minimum according to the following:
    - i. A minimum of one per trench.
    - ii. One test per lift for each parking lot and sidewalk subgrade area.

### 3.05 PAVEMENT MARKINGS

- A. The work under this item shall be in conformance with Section 860 of the Standard Specifications and the Manual on Uniform Traffic Control Devices, current edition.
- B. **Cleaning:** Sweep and clean surface thoroughly to remove loose material and dust. Markings shall be placed no earlier than 48 hours after the placement of the bituminous concrete top course and at a temperature above 45 degrees F.
- C. Apply paint with mechanical equipment to produce uniform straight edges. Lines to be applied at the width and color designated in the Contract Drawings. The Contractor shall establish reference lines for the proper layout of all markings.



Apply in two coats at manufacturer's recommended rates. Furnish and place all barricades necessary to prevent tracking of wet paint by vehicles and pedestrians.

- D. While the paint is still wet reflectorized glass beads shall be evenly applied at the rate of 6 pounds per gallon of paint.

### 3.06 PIPE CLEANING & INSPECTION

- A. Summary: The work shall include all labor, tools, equipment and related items as may be required for the complete cleaning or cleaning and internal inspection and television monitoring of the storm drain and removing and disposing of all deposits cleaned from the drains. The work shall include the thorough cleaning of storm drains in order to permit an unrestricted inspection by closed circuit television. All storm drains will be cleared prior to television inspection. If the television inspection shows drains were improperly cleaned, the Architect will direct the appropriate cleaning and re-cleaning. Re-cleaning shall be done at no additional cost. The purpose of the television inspection work is to determine the structural condition of the storm drains and identify areas of the storm drains with vertical misalignments, collapsed or broken pipe.
- B. Cleaning Procedures and Equipment.  
The Contractor shall clean storm drains prior to internal inspection, utilizing cleaning equipment capable of removing all shapes, sizes and quantities of debris. Cleaning equipment may consist of hydraulic high pressure jet machines, heavy duty power rodding machines capable of cleaning distances covered under the Contract in one step and heavy duty bucket machines that can be used to drag line work with buckets, brushes, scrapers, swabs or other similar devices. The heavy duty equipment may be necessary for the removal of roots or heavy debris.  
Power rodding equipment shall have the capability of spinning the rod either clockwise or counter-clockwise. The equipment shall also be capable of pushing or pulling the rod without rotating the machine. Cleaning shall be performed in the seventy-two (72) hour period immediately before closed circuit television inspection.  
All safety precautions outlined in the General Requirements, or required by agencies having jurisdiction, shall be followed by the Contractor during cleaning operations. The cost of such precautions shall be included in the price bid for this item. All precautions shall be taken by the Contractor to protect the storm drain from damage that might result from the use of unsuitable equipment or improper use of approved cleaning equipment. Any drains damaged during the cleaning operations as a result of the Contractor's operations shall be promptly repaired to an acceptable condition as determined by the Owner and at the expense of the Contractor. If the Contractor's cleaning equipment becomes immobilized within a storm drain, exits the line through broken pipe or portions break off within a storm drain, said equipment shall be retrieved at the Contractor's expense. The Contractor shall act immediately to remedy problems created by the cleaning procedure, which represent a hazard to the general public, such as the collapse of the ground surface above a storm drain. If equipment retrieval necessitates excavation, the Contractor shall be responsible for accomplishing the work at his own expense.
- C. Debris Removal & Disposal  
Remove and collect silt debris and material of any kind and prevent material from being discharged into the drainage system. Legally dispose of all materials removed from existing pipe.
- D. Closed Circuit Television Inspection Procedure and Equipment.  
Television equipment used for the inspection shall be specifically designed and constructed for storm drain inspection. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100 percent humidity conditions and shall be capable of showing the entire inside periphery of the pipe. The camera shall develop and transmit a sharp picture. Contractor shall provide a video DVD of camera inspection with foot marks on the video with a corresponding plan of the sewer pipe accurate to within 1 foot.

### 3.07 LANDSCAPING

- A. Hydroseeding
  - 1. General: Areas to receive seeding treatments include all turfgrass areas as shown on the site plan and areas disturbed by the Work not scheduled to receive bark mulch. Contractor shall be available to re-treat areas disturbed by ongoing activities.
  - 2. Soil Preparation: Verify that all areas of turf seeding treatments are free of vegetation, and other objectionable material. All turf areas will be uniformly compacted.

3. *Hydroseeding Preparation:* Do all slurry preparation at the job site:
  - a. Water, mulch, fertilizer, binder and other ingredients shall be added to the tank simultaneously so that the finished load is a homogenous mix of the specified ingredients.
  - b. Seed shall be added last and shall be discharged within 2 hours. Loads held over 2 hours will be recharged with  $\frac{1}{2}$  the seed rate before application.
  - c. Once fully loaded, the complete slurry shall be agitated for 3-5 minutes to allow for uniform mixing.
4. *HydroSeeding Application: One Step Hydroseed.* All hydroseed applications are to be applied in a sweeping motion to form a uniform application and form a mat to thoroughly cover entire area to be seeded at rates recommended by manufacturer.
5. *Clean up:* Installing contractor is responsible for washing or cleaning excess material off of all areas not intended to receive treatment. Clean up and remove associated materials and debris from the project site before final acceptance.
6. *Water and First Mowing*
  - a. Water shall be furnished by owner. Contractor shall provide hoses and backflow devices to connect to hose bib or hydrant. Contractor shall be responsible for watering the lawn for 60 days after application and shall provide the first mowing at the end of this period. Lawn shall be cut high and no more than one third of the height of the blades height shall be cut off.

**B. Weedblock and Mulch**

1. Verify the subgrade is at correct elevation and clear of debris and objects that could punch through fabric. Lay fabric down overlapping seams by 6" or more. Straighten fabric and remove bunches and folds in the fabric. Field cut to edges of area to be mulched with enough fabric to fold down an extra 6 inches of material to form a "hemmed" edge in the fabric. Pin all edges of sheets at a spacing required by the manufacturer.
2. Apply 3-4 inches of mulch over weed block. Rake out to a final grade and dress areas around drains with 2-3" diameter stones to prevent mulch from clogging drains.

END OF SECTION